





# RIVER TAMAR COPPER MINING COMPANY (LIMITED).

Capital £10,000, in 10,000 shares of 1s. each. Deposit 2s. per share.  
 With power to increase.  
 Calls not to exceed 2s. 6d. at intervals of not less than six months.  
**OFFICES, 10, KING'S ARMS YARD, MOORGATE STREET.**  
 The River Tamar Copper Mining Company has purchased the late Sir John Lubbock's South Devon Great Consols Mine, under which appellation it has been prosecuted for upwards of four years past, with the greatest vigour and judgment. The mine is situated in a stratum of granite and kiles, the former being exactly similar to the granite which yielded such great results at Gunns Lake; and the latter being in every respect like that which has yielded such unprecedented returns at the Great Devon. The presence and junction of these two formations are highly favourable to good deposits of copper, and the mine is traversed by cross-courses, which appear to be necessary to the development of profitable copper mines. The character of the lode at the shaft is wider than the general run of granite lodes, which is also promising feature, and it runs nearly vertical, which is also a further advantage. Greenish sand is found in the lode as low as the 50, a good indication of a deep and profitable mine; and, lastly, the kind of copper ore which is found in this lode is of the highest possible quality, so that the smallest quantities would be remunerative. In these peculiarities, every known circumstance which tends to great success exists, and at the present time discovery of a remunerative deposit may be made at any moment.  
 Applications for shares, according to the enclosed form, accompanied by the receipt of the bankers of the company for a deposit of 2s. per share on the number of shares applied for, may be made at the offices of the company, and all applications by former adventurers in the South Devon Great Consols Mining Company will have precedence.

## FORM OF APPLICATION FOR SHARES.

To the Directors of the River Tamar Copper Mining Company (Limited).  
 Offices, 10, King's Arms-yard, Moorgate-street.  
 GENTLEMEN,—I request you to allot me \_\_\_\_\_ shares, of 1s. each, in this company; and I hereby agree to accept the same, or any less number which you may allot me, and to execute the Articles of Association of the company when required; and on failure so to do, I consent to forfeit the deposit of 2s. per share now made with the bankers of the company.  
 Dated this \_\_\_\_\_ day of \_\_\_\_\_ 1857.  
 Name in full \_\_\_\_\_  
 Residence \_\_\_\_\_  
 (State if an adventurer in the South Devon Great Consols Mining Company, and the numbers of the scrip certificate held.) \_\_\_\_\_

# SLATE SLABS AND ROOFING SLATES.

The PROPRIETORS of the NEW MACHNO SLATE AND SLAB COMPANY (LIMITED) have, at great cost, made arrangements to convey their produce from their quarries near Porthleven to Conway, to obtain the great advantage of access to the railway, giving them the facility of executing orders without the slightest delay. They trust that making Conway their shipping port will not cause them to be confounded with those hitherto known as the CONWAY SLATES, as the MACHNO SLATES are ENTIRELY FREE from PYrites, or any metallic substance liable to OXIDATION; and, from having been tested in Wales for at least half-a-century, are found to attain a degree of hardness, by exposure to the atmosphere, unknown in any other vein. The MACHNO SLATES are too well known to need comment, but the annexed valuable testimonial from Mr. Magnus, and also a strong chemical test to which they have been subjected, will better explain their quality.  
*Porthleven Slate Works, Upper Belgrave-place, London, April 7, 1855.* GENTLEMEN: I very readily offer my testimony to the excellence of your slabs raised at the Machno Quarries. I prefer them to all others obtained in North Wales, with one exception, and that is much of the same quality as the Machno. The slabs can be obtained of large sizes, and of every requisite thickness. They are homogeneous in texture, strong, of good colour, free from spots and other impurities, pleasant to the touch of the mason, easily planed and squared, and will bear exposure to a much higher degree of heat than slabs from any of the Carnarvonshire quarries.  
 Signed, G. E. MAGNUS.  
 To the Proprietors of the Machno Slate and Slab Quarries.  
*Liverpool, Oct. 15, 1855.*—DEAR SIR: The experiments which I have tried on the specimens of slate, in reference to its capability of resistance to acids, enable me to pronounce it in every way capable of retaining boiling vinegar, without injury either to its own substance, or to the contained vinegar. A piece of the slate, weighing 95 grs., was exposed for 24 hours to the action of cold strong nitric acid; it was then boiled in the same acid for 20 minutes, and when washed, dried, and weighed, was found not to have lost perceptibly in weight. This I consider the most conclusive experiment.  
 Signed, GEO. C. HUSON.  
 Wm. Orme Carter, Esq., Machno Slate and Slab Company.  
 All communications must be addressed to the resident director, Mr. T. H. WHEELER, Conway, North Wales.

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# ON THE SEPARATION OF IRON FROM MANGANESE.

BY FREDERICK FIELD, M.B.A., F.C.S.

When a peralt of iron is digested with oxide of carbonate or lead at a moderate temperature, the whole of the iron is precipitated; the decomposition takes place more rapidly upon the application of heat. There is no decomposition in solutions of the protoxides of manganese when similarly treated. By boiling the solution, obtained by the action of the hydrochloric acid upon commercial oxide of manganese with oxide of lead (litharge will answer every purpose), the liquid becomes colourless after a few minutes, and a basic salt of iron is precipitated. It is, however, necessary to separate the lead from the manganese, which is best effected by the addition of a slight excess of sulphate of soda before filtration, and a small quantity of sulphurated hydrogen-water (or the gas) to the filtrate. It is almost impossible to separate all the lead by means of sulphuric acid or a soluble sulphate. The following experiments will show the accuracy of the method.

1. 10.00 grs. manganese-manganese oxide, Mn<sub>2</sub>O<sub>3</sub>, prepared from the carbonate, were dissolved with 10.00 grs. pure metallic iron in dilute nitro-hydrochloric acid.
2. 10.00 grs. manganese-manganese oxide were treated in the same manner with 10.00 grs. iron.
3. 10.00 grs. iron and 1.00 gr. manganese-manganese oxide were employed.

When the substances were dissolved and the iron completely peroxidized, the solutions were evaporated to expel any great excess of acid, and severally boiled with about 100 grs. of litharge. After cooling, a solution of sulphate of soda was added in excess, the liquids filtered off, and the precipitates thoroughly washed.

A slight stream of hydrochloric acid was passed through each, which occasioned a small precipitate of sulphide of lead. On refiltration, and boiling to expel excess of hydrochloric acid, the manganese was precipitated by carbonate of soda, and after washing and desiccation, heated to redness for its conversion into manganese-manganese oxide.

	Yielded.	Taken.
1	9.94 Mn <sub>2</sub> O <sub>3</sub>	10.00
2	9.97	10.00
3	9.97	10.00

The oxide was perfectly pure. The carbonate of ammonium, pure flesh-coloured sulphide, with no trace of black, and ferrocyanide of potassium gave no shade of blue. Equally satisfactory results were obtained in the estimation of the iron.

The employment of hydrochloric acid is indispensable in the process. When peroxide of iron and oxide of lead are boiled with weak hydrochloric acid, no precipitate is produced upon the addition of sulphuric acid or sulphate of soda. On cooling, large crystals of chloride of lead are produced, and on further concentration more of the salt may be obtained. It appears that no sulphate of lead is formed. When peroxide of iron and chloride of lead are boiled with hydrochloric acid (the latter even in minute quantities), the whole is dissolved, and chloride of lead separates on cooling.

The introduction of a third metal for the separation of the two already existing, may be urged against the above process; but it must be recollected, that to obtain pure oxide of manganese from the commercial oxide, it is always necessary to pass a stream of sulphurated hydrogen through the acid liquid to precipitate traces of copper, &c., which generally exist in the mineral. In the method under consideration, the sulphurated hydrogen is merely added after the separation of the iron instead of before; any traces of copper, &c., being separated with the small quantity of lead which has escaped precipitation by sulphuric acid.—Chemical Gazette.

# ON SUPERHEATED STEAM.

BY THOMAS FRISCHER, C.E.

The subject of superheated steam is far from being a new one, but inasmuch as another of those oft-recurring efforts to which an imperfect knowledge of the physical laws which govern it is now being made, I have ventured a few more words of advice, in the hope of staying the delusion somewhat, to prevent a useless expenditure of time and money, with a fearful sacrifice of life itself, which must result from the extensive adoption of superheated steam, produced in the manner generally contemplated. The superheated is probably the only state in which steam should be admitted into the cylinder of a steam-engine, for the purpose of fully developing its mechanical effects in the most economical manner, provided that it can be done without increasing the danger which necessarily attends its use in any state.

It is a danger which has been treated more like supernatural than natural. If the gas (that is the term applied) observed, when steam is so used, is really attributable to it as the primary cause, we have an effect from a cause which is in no way adequate to its production, so far at least as our knowledge of the physical nature of steam extends; the effect therefore is supernatural.

It would be no difficult task to show the delusion under which the experimenters themselves have laboured, in all those cases which are relied upon to prove the enormous gains obtained by using superheated steam; but it would be an endless repetition. I prefer, therefore, to state what we do know, if any reliance is to be placed on the experience of Benjamin and others:—That all dry saturated bodies are expanded nearly alike by the absorption of the same amount of heat, and that there exists no reason whatever for supposing that steam acts otherwise when superheated.

There is no dogma better supported by inductive reasoning than this, as a physical fact, for although there are no experiments which entirely agree with it, the differences are so small as to be within the possible errors of experiments of so much delicacy. At all events, even the experiments themselves, however selected, do not justify the claims set up in favour of superheated steam, hot air, carbonic acid gas, alcohol, or ether, and the failure of all of them points to the same cause.

If steam is an exception to the general rule, we have no reliable experiment which proves it, for those which have been supposed to do so are of no value whatever. The solution of the difficulty is simply this—superheating the steam prevents its condensation in the cylinder, and therefore avoids a loss; that is all which it can do, and enough too, for that loss is so enormous, that the advocates of the air-pump condenser are compelled almost to ignore it, or to acknowledge this new "spirit" of evil and of error. Of evil because of the extreme danger attending its production, and of error because of the curing of an evil, by the means of preventing its existence, for, says the good old proverb, "it is better to suffer than to cure."

When we reflect upon the fact that the air-pump which is used to exhaust receivers in the production of ice, and that the air-pump of a steam-engine condenser are of precisely the same character, need we be surprised (or should we not be surprised were it otherwise), that a chilling effect is produced upon the inside of a cylinder at a high temperature, and ever exposed to its influence? Surely, the steam which comes in contact with the cylinder and piston must be condensed, and to some extent, neutralize its power. That the interior (as well as the exterior) surface of the cylinder must be so warmed, is self-evident, but there is a vast difference between doing it by the condensation of the steam at a time when it should be exerting its utmost mechanical effect upon the piston, and doing it through the medium of the superheated, while the steam itself is left in full power, unconcensed.

Superheated steam, therefore, prevents waste; but the processes by which it is generally proposed to superheat it are attended with imminent danger, not only on account of the rapid corrosion of the metal in contact with the steam while being superheated, but also on account of the great immobility of the particles of steam when so heated, and the slow additional specific heat, which prevents absorption as fast as the metal will allow the heat to pass, and thus renders it liable to become red-hot.

Now, expanding high pressure steam before admitting it into the cylinder, has precisely the same beneficial effect in preventing condensation, and is not attended with the danger of superheating; but then comes the bugbear of wire-drawn steam. Now, what does it matter if the steam is throttled, provided we get all the power required from it? If none is condensed in the cylinder, all the power in the steam has been utilized. The dense steam will not cost more to make in proportion to its value than any other steam.

Steam at 200° C. has a pressure of 15.35 atmospheres, and its total heat amounts to 687.5° C. according to Regnault. By throttling so as to withdraw it, as it is called, it assumes the state of superheated steam, in consequence of having more heat than is contained in normal steam when so expanded, while at the same time it is deficient of water or density. Supposing it has retained its original amount of total heat without any cooling, excepting that occasioned by expansion to four times its volume, the temperature will fall from 200° C. to about 158.3° C., while the density and pressure will be one-fourth of the original steam. Clearly this must be superheated steam, for normal steam has no such proportion as we have assumed between its total heat, density, and pressure. But allow this expanded steam to cool down to the point of deposition, which is about 149° C., and pressure 3.576° C., and the same authority as before quoted will inform us that the total heat in such steam is but 649.2° C., having lost 15.3° C. (=687.5-649.2) of total heat by the reduction of its temperature from 200° C. to 149° C. (=60 per cent.) This loss of total heat, which must go into the metal of the cylinder and piston before any condensation can take place, amounts to about 1-5th of the total heat contained in the steam before expansion, and is abundant cause to prevent any condensation in the cylinder, working with ordinary and further expansion.

The mechanical effect of the expansion between the boiler and cylinder is lost, but not more so than if it had never been created, since it costs no more to produce high than low pressure steam.

The same weight of fuel will evaporate the same weight of water under all pressures, and, therefore, the hotter the water is the more rapidly and effectually will it abstract heat from the fuel, for it really contains more of it, and as the fuel is the only source of supply, there must be greater economy in burning it under hot than cold water; and this agrees with Leslie's experiments, which show that water at the boiling point abstracts heat five times more rapidly than it does at the freezing one.

Of course the boiler must be stronger in proportion to the elasticity of the steam to be generated in it, but that need form no objection now, as the use of cast-iron instead of iron will fully compensate for the difference.

Cast-steel boiler plates are now being used by the English Government, and it is to be hoped that this element of safety will be long adopted by our own, for with this material a boiler can be made which cannot be burst by mere steam pressure. The author has seen one of iron which he thinks may claim the same immunity—at all events, he is willing to test it against any other in the United States.

Although, therefore, there are no objections to the making of this high pressure steam, there are some to the using of it, without letting down.

In the first place, it may blow off the cylinder cover of a good many engines, such as are now built, if it did not burst the steam-chest before reaching it, or even the cylinder itself.

In the second place, it may burn up hemp packing, for the temperature is greater than any cooking oven 200° C. (=392° F.), although not half so hot as air and superheated steam has been done.

Nevertheless, if high-pressure steam is required in the dry state, it can be obtained with safety and simplicity from a multibore boiler, similar to the one which supplied steam to the fire-engine exhibited in the Park some time since, which raised steam from cold water in five minutes, from the time of lighting the fire in the regular safe and honest way, with the tube plate sufficiently covered by the water, and not in that extremely dangerous manner in which many others do it, by first heating the metal to almost a red heat, and then projecting the water upon it.

The steam from this fire-engine boiler has, moreover, after having been at work some time, left the exhaust pipe and header perfectly dry.

The proportions of such a boiler as will give the required results, appear to be about 1 ft. of grate to 60 or 70 ft. of recipient heating surface, of which at least one-third should be above the water line, and in among the steam for the purpose of drying it through the medium of the hot gases after they had passed through the water,

and have become sufficiently cooled to be used with safety for that purpose. These are equal to the best locomotive boiler proportions, but the application is very different, as the boiler is upright, and the uptake is immensely expanded just below the water line, at the instant the gases are in a state of intense ignition.

I have stated nothing in this communication, but simply physical facts, and yet I know very well that a majority of the engineers of the present day will condemn them as heretical, and probably knock them on the head with the slender hammer of practical experience. If you are right, said one of our most valiant engineers, we are all wrong. Even so. But truth—ah!—will prevail, which I intended to prove by some poet, but having forgotten his poetry, will merely reiterate, will prevail, without, however, committing myself to the precise time—when.—Journal of the Franklin Institute: New York, Sept.

# MANAGEMENT OF BLAST-FURNACES—FLUXES.

[From Mr. S. B. Rogers's forthcoming "Treatise on Iron Metallurgy."]

With these fluxes an experienced furnace manager would be enabled to produce, at all times, any iron or sinder result that may be required, and, consequently, demonstrate, beyond all cavilling, that the working of blast-furnaces may be placed under complete control—a circumstance that no ironmaster or furnace manager is at present willing to admit; indeed, such a thing is put down as a rank impossibility, but the only reason for such a conclusion is that it has never yet been done! This is a reason certainly in keeping with the conclusion referred to, but it has no support from science, and very little from actual practice. Now, with respect to the production of quantity of pig-iron from one furnace in any given time, the maximum has not hitherto been even conjectured; for if the furnace mixtures of coke, mine, and flux are duly apportioned, and the several elements thereof brought in contact with each other, so that the earthy residuums should of themselves readily unite at the temperature of the furnace into a fluid, and nearly colourless, glassy sinder, and, consequently, without taking up protoxide of iron (for this is the test of good and efficient furnace management—a point, however, that cannot by any possible means be effected without the aid of an active flux or fluxes); then the quantity of iron which may be produced in any given time will only be limited by the quantity of coke that may be consumed, or the amount of temperature that may be generated in that given time; so, with a sufficient command of blast, there are no insurmountable impediments to the weekly make of blast-furnaces ranging to 300 tons, or even more, of good pig-iron, and this with the very important and peculiar advantage of the whole of the iron of the mines employed going into the pig-bed or refinery-box, instead of from 16 to 20 per cent. of it, and often more, flowing away as a black scouring furnace sinder—a complete and total loss to the extent, in the aggregate, at some large iron-works, of from 4000 to 5000 tons a year! And besides this direct saving of iron, the quality of the whole make would be so much improved by the new principles of iron smelting under consideration, as to prevent a very large waste of iron in the conversion of pigs into finished wrought-iron results.

# ASSOCIATION FOR THE PREVENTION OF STEAM-BOILER EXPLOSIONS.

The monthly report of Mr. R. B. Longridge, the chief inspector of this

society, states that during the present month 418 visits have been made to members of the association, and 1074 boilers inspected (32 of these internally). The principal defects which have been observed are:—10 boilers injured from deficiency of water, but not immediately dangerous; 12 boilers defective from corrosion or fracture of the plates, one of these dangerous; 3 water gauges out of order; 3 safety valves ditto; and several pressure gauges incorrect. On Sept. 18 an explosion took place at Messrs. R. and W. Johnson and Co's Ironworks, Bradford, by which the engine-man and three other persons lost their lives. The first explosion of a boiler under their inspection, occurred under the following circumstances:—The boiler, made by Messrs. W. Fairbairn and Son, was 22 ft. long and 5 ft. diameter, with an internal flue 2 ft. 9 in. diameter, made of 3/4 in. plates, containing the fire. In one of the plates over the fire was fixed a brass bolt, originally filled with lead, which was found to have been melted out on examination after the explosion. This, together with the red oxide on the surface of the plates, present unequivocal evidence of the upper part of the flue having been red hot, which could only have ensued from a deficiency of water. The glass tube water gauge, with which this boiler was provided, was found in good working order; as were also the two safety valves, one weighted to 50 lbs. per square inch, the other somewhat higher; but inasmuch as this boiler was in connection with 16 others, of which the valves were also weighted to 50 lbs., we may fairly conclude that this pressure had not been exceeded. Moreover, there is evidence to show that shortly before the explosion one of Schaffer's gauges indicated only 45 lbs. per square inch. This pressure would amply suffice to collapse the flue, of the overheated state of which we have such clear indications. It appears that the attendant was in the act of stirring the fire when the explosion took place. The collapse of the flue extended the entire length, with fracture of the plates at two of the seams near the middle, also in the underside at the front end, and partially along the sides. The steam and water having free access from both ends of the flue, the position of the boiler itself was not disturbed, but the brickwork at the back, as well as the fuel from the furnaces, were projected to a considerable distance. An examination of the feed valve satisfactorily explained the cause of the deficiency of water, which led to such unhappy consequences. This valve, attached to the spindle by means of a screw, had originally been secured by a small pin, which appears to have come out, or been destroyed by corrosion. Owing to the absence of this pin the valve appears to have gradually turned on the spindle, and ultimately become detached (probably within two or three hours of the explosion), without the knowledge of the attendant, who on turning the handle to raise the valve, would be under the impression that the valve had lifted, and the boiler was receiving its proper supply of water; and, not having directed his attention to the water-gauge, he appears to have remained in ignorance of the danger till the explosion occurred.

From this sad event may be learned the necessity of providing every boiler with efficient mountings to prevent accident in case of deficiency of water, and not to rely solely on the attention of the person in charge; for, in the present instance, the attendant was a man of many years' experience, who had always been considered careful, intelligent, and attentive to his duties, and yet, by an oversight, easily to be conceived, an accident ensued which cost him his life.

He, therefore, takes this opportunity of again urging the importance of providing every boiler with proper means of safety, as described in his first annual report for the year 1855. He deems it necessary, however, to observe, that although he recommends as one of the best safeguards the general adoption of fusible plugs, there are many of these so-called action are the "patent fusible alloy caps," in which small fusible plugs in the form of a cone, with the base exposed to the fire, are fixed in a brass seat about three inches above the top of the flue. On the softening of the alloy of which these plugs are composed, either owing to a deficiency of water or increased temperature from excess of pressure, they are instantly blown out; whereas in most if not all of the other plugs, or fusible washers, the metal beginning to melt in one part as one of the best safeguards the general adoption of fusible plugs, there are many of these so-called action are the "patent fusible alloy caps," in which small fusible plugs in the form of a cone, with the base exposed to the fire, are fixed in a brass seat about three inches above the top of the flue. 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## Original Correspondence.

## VENTILATION OF COAL MINES.

Sir,—In perusing your last week's Journal, I met with a reply from Mr. Hopton to the question which I previously propounded, to test his plan in one part; but Mr. Hopton, instead of giving the question that amount of gravity which it requires, tries the sarcastical, and uses very questionable language. I shall overlook this, and come at once to the cause of dispute, as it is desirable that this simple question should be at once at rest.

**QUESTION IN DISPUTE:** Two columns of air, the distances of which are unequal, will not pass through one and the same regulator in equal quantities. Mr. Hopton, in his reply, states that it is not necessary that it should be so; I ask why not? It is quite as possible that equal quantities might be required as unequal, consequently it will be at once seen that his answer was evasive. Not being satisfied with his answer as to what could be accomplished with "one and the same regulator," I put another question, to ascertain how he could get unequal quantities to pass through the same regulator: he observed that I required the larger quantity around the longest distance.—Second Question: I wish to know how I am to get a larger quantity of air around B, which represents the longest current, than is passing along at A. This question appears to have required no small amount of consideration, as Mr. Hopton did not reply until the expiration of a fortnight; at last he came forward, and states to accomplish this he must have recourse to another regulator, which he places in the division A. I ask, does not this admission settle the above question entirely in my favour with respect to "unequal lengths and equal quantities?" I answer in the affirmative. Again, Mr. Hopton wishes to colour his admission with regard to the second regulator, by stating that "his explanatory tract" provides for such regulation, if it be required, even so plain and clear as twice two are four. I shall now quote that part of his tract which treats upon this point—"It will be asked, will not the air as it descends the downcast shaft enter the nearest air-gate and return back to the upcast shaft; such will, doubtless, be the case if there be room enough for all the air; and if there be 12 sets of winds in a mine, and some of the sets have more air than is needed, while others are deficient, all that is needful in that case is simply to enter the return air-gates of those sets from which you desire to take a little air in, and so regulate them that they will allow only of a sufficient quantity for those sets. The regulator places may be seen at K plan (No. 3). I now ask the reader, has Mr. Hopton once alluded to any more regulators being placed if required? Has he not distinctly stated that the regulating places are at K? He now, after finding that he has been deluded himself with the idea that he was perfectly right, wishes to place a regulator where there is no K marked on his aforesaid plan, No. 3. May I enquire where Mr. Hopton got the idea of the second regulator? On referring to the above diagram, and closely examining the arrangement of the stoppings, crossings, and regulators, it will at once be seen that the dots indicating the currents of air around the board-gates, as per Mr. Hopton's No. 3 plan, are diametrically opposite to those indicating the direction which the air will traverse such board-gates. This may appear rather strange to Mr. Hopton, but it is, nevertheless, a fact. He may ask how I make this appear; I do so in the following manner:—Suppose I make a hole in the stopping marked X, which way will the air press through the same? I answer, from No. 1 into No. 2 division, but certainly not from No. 2, around the board-gate, as marked by "H," and then through the regulator A. Then close the hole in the stopping, which will naturally bear the air around the board-gates in the contrary direction, as shown on plan by Mr. Hopton. This places Mr. Hopton in a very unenviable position with regard to his improved plan, as will be clearly understood from the above that the ventilation in the various board-gates are entirely and solely dependent upon the difference of density between the two sides of the stopping "X" to bear the air around to T, in No. 2 column. This is the only ventilating power that Mr. Hopton has under the present circumstances to ventilate the various board-gates; but as the board-gates become so extended that the friction in them will be equal to the difference of density at the stopping "X" then, and in such case, the air will become, as it were, stagnant or motionless. May here add, that the density on the stopping "X" will not so much depend on the difference of distance between the two columns of air as it will upon the velocity of the air along the main level between No. 1 and No. 2; and as the velocity is increased or decreased along the main level, so will it affect the air in the board-gates. Now, may I ask Mr. Hopton, does he think this a safe mode to pursue with regard to the ventilating of coal mines? I would say that such a system is not at all applicable, owing to its uncertainty, as before stated.

In conclusion, I beg to suggest for Mr. Hopton to revise his plan at once, and admit honourably that he is in error, by not having placed his regulators in their proper position, before presenting his "improved plan" to the public. Now that Mr. Hopton has discovered that a second regulator in "A" division is necessary for that part, let him apply the same remedy to all other divisions.

Again, Mr. Hopton states that if the gas should explode in any of these separate "winds," the effect of the explosion would be confined to that particular district, and not interfere with any of the other divisions or "winds," as each has its air direct from the downcast shaft. I ask the reader to refer to the above diagram, and judge for himself whether he would like to risk the explosion, setting all the works on fire, as they are. I should say not, and would advise Mr. Hopton, before he again attempts to enlighten the public by any novelty regarding the ventilation of coal mines, to arrange his ventilation differently from his No. 3 plan.

I now appeal to the public. Was Mr. Hopton conscious at the commencement of this discussion that a second regulator would be required, to adjust currents of air of different lengths and quantities? I answer in the negative, as he could never have arranged the ventilation as he has delineated upon his improved plan No. 3, if he had perfectly understood where regulators ought to be placed, so as to give each and every division its proper quantum.—Oct. 1. J. WALKER.

## COLLIERY WORKINGS—FAN VENTILATION.

Sir,—It is very much to be deplored that men of known ability in particular branches of science or the arts should so far give the rein to imagination, as to propound theories and make assertions at variance with, and in total disregard to, established facts, and twist scientific principles out of all recognisable forms, to suit their own peculiar and erroneous doctrines. At a period in the history of science when this evil is so rife, it cannot be too strongly asserted that all theories, hypotheses, or "opinions," should be founded on, and be in strict accordance with, facts. A notable instance of this unfortunate propensity for theorising, without regard for well-established principles, will be found by your readers in Mr. Ebenezer Rogers's paper on "Fan Ventilation," read before, and published in the *Proceedings of the Institution of Mechanical Engineers*. Referring to a slight explosion which occurred in the pit ventilated by means of the fan, the author states that, "After turning on the steam to the fan, a shower of black particles was thrown out of the fan, which would be the result of the explosion, being the fine particles of carbon, liberated as light flaky soot from the decomposition of the carburized hydrogen by the explosion. This is commonly, but incorrectly, called 'coal dust,' and is always the result of an explosion; and, in the author's opinion, this is the cause of the fatal effect of the after-damp, from the accumulation of the minute solid particles upon the lungs, and not the exposure to the carbonic acid and nitrogen, resulting from the combustion of the gas and air. This opinion is confirmed by the result of examination of the lungs of men killed by mine explosions, which are found to be loaded with the black solid particles. It has been observed that men can live for some time in the after-damp following a mine explosion, if they take the precaution to cover their mouth and nostrils completely with a handkerchief, so as to sift the air they breathe, and prevent these floating particles of carbon from entering the lungs; and this precaution is enjoined in the rules of several mines, to prevent breathing the 'coal dust,' as it is termed. The author has known a miner, named John Hall, now living at Abercromby, got through a distance of half a mile filled with the after-damp, by taking this precaution, and escaped with safety to the shaft. One of the most explosive mixtures of gases that can be produced in a coal mine is in the proportion of 5 volumes of carburized hydrogen, and 40 volumes of atmospheric air; when this mixture is exploded, the results are 2 volumes of vapour of carbon, 3 volumes of carbonic acid gas, 10 volumes of vapour of water, and 32 volumes of nitrogen gas. After the explosion the carbon assumes the form of light flaky soot, which is very finely distributed throughout the air. Table II. illustrates the manner in which the writer believes the de-

composition and combinations accompanying the explosion take place." This table is merely a repetition of the above statement, expressed in symbols.

Now, until Mr. Rogers proves experimentally that free carbon is produced in any shape by the explosion of carburized hydrogen, I must venture to dispute the truth of the assertion that the "coal dust" carried about by the violent agitation of the air consequent on an explosion is due to, and a product of, the decomposition of the free carbon.

How Mr. Rogers can make such an assertion, in the face of all the experiments of chemists on the protoxide of hydrogen, proving that the solid products of its decomposition by explosion with air are water and carbonic acid, I cannot understand. A question will have occurred to some of your readers practically acquainted with the subject, shaping itself somewhat in this wise:—"If solid free carbon be a result of the explosion of free-damp, how is it that there is none produced when it is simply burnt? Perhaps Mr. Rogers will explain this apparent anomaly. Having settled to his own satisfaction that free carbon is the result of the decomposition of the carburized hydrogen of mines, the author arrives at an "opinion" as much at variance with fact as any part of the above quotation; and arguing from false premises, an erroneous conclusion might naturally be anticipated. He states that, "This (the light flaky soot) is the cause of the fatal effect of the after-damp, from the accumulation of the minute solid particles upon the lungs, and not the exposure to the carbonic acid."

Mr. Rogers must know that after-damp, if left undisturbed—that is to say, if not driven out by the reorganization of the ventilation after an explosion, is as fatal to life for hours, and even days, after the explosion as at the first moment of its formation. Do, then, the particles of solid carbon assumed to be produced float in the atmosphere for such length of time? The "coal dust," properly so called, certainly does not float at all; it is a fine powder, and the particles of solid carbon should be so immediately fatal to life, when men (be they, for instance, can work in an atmosphere of coal dust for hours daily for 20, 30, or more years, before death ensues. Surely, if coal dust is so dangerous to life, humanity will compel Mr. Rogers to furnish his colliers with the best patent respirators.

Before any argument can be drawn from the fact (7), that the lungs of miners killed by after-damp are found to contain particles of carbon, Mr. Rogers must prove that these miners never worked in or about cellaries, and that the mine in which they died was perfectly isolated from coal workings. By covering the mouth with a handkerchief, the moisture of the breath condenses it, and dissolves some portion of the carbonic acid of the after-damp; and hence it has in some cases proved the means of saving a man's life.

Dr. Playfair pointed out a means which is still more efficacious—breathing through a wet cloth containing Glauber's salts and quick lime; inasmuch as a greater portion of the carbonic acid is separated before reaching the respiratory organs. I hope that what I have stated is sufficient to convince your readers that the cause of death from after-damp is not the accumulation of fine particles of carbon in the lungs, and that the assertion that free carbon is produced by the decomposition of free-damp is unfounded. There is another subject in Mr. Rogers's paper which requires some explanation. He states that, "the mode adopted for ascertaining the velocity of the air currents in the experiments on fan ventilation was by calculation from the difference of pressure, as observed by means of a carefully constructed vacuum gauge, the result being checked by the anemometer, &c. Does Mr. Rogers mean that the velocity and quantities of air given in his table of the results of fan ventilation are merely calculated values? or that the ventilation, as found by calculation, corresponded with that ascertained by the anemometer? The result of a calculation from the difference of pressure in the two columns of air, would simply give the theoretical velocity, or that due to a body falling from rest, to a depth equal to the height of a column of air equivalent in weight to that of the water in the vacuum gauge, indicative of the difference of pressure, which value would be very different from that obtained by the anemometer; inasmuch as, according to the author's own statement, the aggregate length of the air current at the Abercromby Pit is from 10 to 15 miles; and if the airways are of the average size of those in thin beds of coal in the South Wales district, 10 to 15 feet area—there must be a very considerable diminution in velocity and volume consequent upon the friction in passing through such air-ways; and therefore, a wide difference between the theoretical and actual velocity and volume of the air travelling up the upcast pit.

In these remarks I have no other object than that of arriving at correct data upon which calculations as to the value of fan ventilation may be founded, and the hopes that a greater amount of information on this interesting subject may be laid before your readers. [I enclose my card.]—Newport, Oct. 1. F. G. S.

## THE IRON TRADE—THE CORT TESTIMONIAL FUND.

Sir,—The letter headed as above, in your last Journal, signed R. Mansfield Marks, dated Rue de Madeleine, Paris, September 22, demands some notice, purporting as it does to be explanatory of the writer's conduct with reference to the Fund, for the success of which, with tears in his eyes, he professes to be, and no doubt is, so deeply interested. Knowing the value of space in your Journal, I shall now briefly notice your Anglo-French correspondent, meaning to address a circular to the Iron Trade, containing his letter and this reply, with such other facts and proofs as will fully establish all past concealments and misrepresentations, should he fail to make the *amende honorable*, as I shall propose, which no honest or sane man would dare to refuse.

After remaining several weeks at Glasgow, I discovered to what extent the "Cort Testimonial Fund" had been injured that I found Mansfield Marks had introduced himself in the name of Mansfield Marks, generally in a cab at every door, as gentleman having private business of his own to transact, but could not resist the opportunity of indulging a sincere desire to relieve immediately, if possible, the aged daughters of the late Henry Cort, whose inventions had contributed so largely to the prosperity of the Iron Trade and commerce of Scotland.

But, whatever might be the intensity of his benevolence to relieve the immediate wants of my aged sisters, whose pensions do not exceed for two of them 19l. per annum each, while the other is wholly destitute, he seemed to have forgotten altogether, during the last 12 months, to pay in cash a single farthing to the Cort Fund, out of some hundreds sterling, which he must have himself retained, over and above all expenses, out of 600l., confessed by himself to have been collected at Glasgow and elsewhere. The total amount paid to the bankers up to the end of December last, solicited by Robert Marks, does not exceed 145l., every farthing of which was paid by the donors themselves in cash or cheque—these the latter not available by Marks, or the whole, like all the rest of the payments, since in cash or cheque not crossed, reduced by himself, in the probability, would have been cashed the Fund in any shape. For the 145l. he has not been able to bestow on his sisters or myself, I hold the receipt of Robert Marks for 39l. 10s., while he remains indebted to the Fund more than 400l. sterling out of the 600l. confessed to several of the authorities at Glasgow to have been collected, or let him prove the real amount to be otherwise.

When asked by one of the principal iron companies, after reading my advertisement in your Journal, whether he had paid the money subscribed, he declared, without blushing, that he had faithfully deposited the whole in the hands of Sir John W. Lubbock and Co., but on enquiry this statement proved to be totally false, not a farthing having been paid, and he was then threatened with prosecution if he did not refund the money not returned, when he suddenly despatched without leave, and took up his quarters in Paris, where he was not quite so well known.

If, therefore, Robert alias Mansfield Marks be really influenced by the most benevolent, disinterested, national sympathy, as he pretends to be, for the aged daughters of Henry Cort, let him come forward like an honest man with a real account of subscriptions received by himself, before it be too late to save any further damage to his reputation in this country; let him deduct all his expenses, even those of his private business at Glasgow, together with most honest man in your columns, to throw any more dust in the eyes of your readers, should he use to refund the money received for the aged daughters of Henry Cort and myself. RICHARD CORT.

Mining Journal Office, 36, Fleet-street, Oct. 2.

## ON THE TRIAL OF PATENT CAUSES.—No. XIII.

Sir,—Having in my last letter indicated the purpose I have in view in drawing attention to the features of Heath's case, I will now, after making a single further remark, proceed to consider the circumstances of this remarkable case, which appears to have decided in favour of the plaintiff, being about 15 years old at the time of its decision.

My preface to this case is—I wish to clear myself from any semblance of disrespect for the Bench, or of want of confidence in the proper administration of the Law of Patents, in the comments which will be submitted to your attention, although I am a member of that profession which is usually spoken of in no very complimentary terms by lawyers. For instance, the *Jurist* says—"A pair of folding-doors, with large side plates bearing the words 'Office for Patents,' are much affected by gentlemen in this line of business, with the design, we suppose, of giving their chambers a more imposing and important appearance, and of the unpardonable presumption of the Attorney or Solicitor-General for the time being." Although a patent agent, I am anxious to avoid even the appearance of disregard for the majesty of the law, and for this reason I beg to remind you that my sole aim is to remedy defects in its administration. But to proceed to the consideration of Heath's case, it will be convenient to arrange my remarks under two heads.

1. Observations on the circumstances of the case.
2. Application of the proposed plan to the case.

The other ground I shall go through the several trials and judgments successively, so far as appears to be material to my purpose, and then submit a kind of summary of what has been thus presented.

**TRIAL AT LAW IN THE EXCHEQUER, BEFORE LORD ALBANY, C.B.**

The result of this trial was a nonsuit—a lamentable beginning, agreeing no good for the future proceedings. This nonsuit rested on two grounds, both of which are open to question, when we consider the profusion of the courts in modern days to put a favourable construction on the patentee's case. One ground was the greater cheapness of the use of the elements of carburized manganese as compared with the use of carburized iron itself, first formed out of its elements and then used. Now, in the absence of distinct evidence that this alteration constituted a substantial change of manufacture, being only a difference in the process adopted by Unwin. But the evidence is stated to have reached the point that, in the opinion of scientific witnesses, the carburized manganese was formed, only that there was a natural and insuperable difficulty in the way of distinct proof of this point, since it did not admit of being fully tested by experience. "It is impossible to look inside the crucible" during the process. Now, it is right to require further evidence than that of scientific testimony in such a case as this? If it be all that, under existing circumstances, can be produced to the Court, is it right to say that the patentee has failed to establish his case because his evidence does not amount to a "direct proof"? It would have been right, undoubtedly, had such proof been possible, but is it right when, in the nature of things, such proof is impossible? In criminal prosecutions, evidence short of absolute proof, when it appeared that such proof was impossible, has been held sufficient to establish a charge of guilt. And, surely, no judge would consciously accept insufficient evidence in a case of this kind, involving, it might be, the life of a fellow-creature! There are many instances also in other departments of enquiry, in which we think it quite reasonable to accept evidence which is not absolutely complete, but is more so than that

which can be alleged for a contrary proposition. Assuming, then, that the statement in the report is correct, that the scientific testimony went to the point of ascertaining, as matter of distinct opinion, the formation of carburized manganese during the process, it appears to me that it was hard to nonsuit the patentee for want of giving further evidence. But, unfortunately, no particulars of the evidence are reported, and Mr. Webster's note seems to imply that some doubt as to the point existed, by informing us that all doubt was satisfactorily removed, only by "subsequent experiments." Then, beyond this, there is a point on the construction of the specification involved in the nonsuit. The evidence of the plaintiff was held not to have established against the defendant "the use of carburized manganese in the manufacture of steel, within the meaning of the specification." But, unfortunately again, we have not the opinion of the judge on its meaning. If this meaning included only carburized iron, as a solid tangible substance, evident to the senses, then there had not been such an use, because such a substance had not been put into the melting pot. But if this meaning included carburized manganese in its essential chemical properties, is it then so clear that there had not been such an use, for had not such essential chemical properties been brought to act on the metal under treatment? If this meaning included carburized manganese in its essential chemical properties, is it then so clear that there had not been such an use, for had not such essential chemical properties been brought to act on the metal under treatment? If this meaning included carburized manganese in its essential chemical properties, is it then so clear that there had not been such an use, for had not such essential chemical properties been brought to act on the metal under treatment? If this meaning included carburized manganese in its essential chemical properties, is it then so clear that there had not been such an use, for had not such essential chemical properties been brought to act on the metal under treatment?

I have thought it right to remark at greater length on this nonsuit than will be found necessary on each of the subsequent proceedings, because it must be borne in mind my chief object is to show the importance of accuracy and completeness in the outset of a case. It may be some relief to your readers thus to know that the infliction of a long story on this case is not to be so great as its commencement would lead them to fear.—Office for Patents, 30, Chancery-lane, Sept. 30. Wm. SWEENEY.

## TRIAL OF PATENT CAUSES.

Sir,—As, years ago, I mooted in your Journal the desirability of some arrangements being made, whereby the trial of patent causes might be rendered more certain and less expensive, especially pointing out that, instead of the present absurd system of each party in the cause bringing forward some so-called scientific witness, paid to sustain and maintain his view of the case, and to puzzle the court and jury by the variations of his (the great chemist's or engineer's) opinion from that of the equally great man on the other side to withstand him, we ought to have some competent parties officially called upon to state in open court, and subject to be questioned in court, their views on the subject, so as to obtain unbiased opinions for the guidance of judge and jury—therefore, I certainly feel interested in the very elaborated treatment the subject is at present receiving in the Journal from the pen of Mr. Rogers; but I cannot allow the opportunity to pass for insisting upon the importance of these technical details being subject to examination in open court, like ordinary witnesses; for if this be not allowed, then shall we have the prejudiced views of the great scientists carrying away those on the judgment-seat from the real truth of the case, and in the end shall only exchange one kind of perversion of truth justice for another.

The evil effects of taking anything as established without proof or consideration, upon the mere *ipse dixit* of those accustomed to hold forth *ex cathedra*, are well known to all who have any experience in matters of practical science; and often equally bad effects will occur from assuming that we truly understand the meaning of statements written by men who, although thorough adepts in scientific matters, are not perfectly well skilled in the mysteries of language, which renders personal explanation often highly necessary and expedient. Patent Office, 156, Strand, Sept. 30. F. W. CAMPBELL.

## PUMPS FOR MINES.

Sir,—I have noticed a paragraph in your valuable Journal of Sept. 10, in reference to a plan proposed by Mr. W. H. Harrison, of Ty-Mawr, Pont-y-Fridd, Glamorgan-shire, recommending the use of "iron-steel," or a combination of both, for side rods for pumps. The suggestion for side rods no doubt is good, and is an improvement on the old plan of fastening the second rod to the side of the first. No doubt there are many objections to this plan of connection; one is, that it throws the strain out of the centre line of the former ram, and the consequent tendency of jamming the ram in the gland and cast the result of which would be to wear the ram on one side, and hence the necessity of having the connection both sides of the pump barrel. With due deference to Mr. Harrison's plan of iron-steel, or a combination of both, for side rods for pumps, I differ as regards the material to be used for them. I would prefer wooden rods to either of them, being of a more porous and softer substance, to receive the tremor and surges which pumps are invariably subjected to by working on blast, insufficient packing, tight blast, &c. I have had a 1½-in. former working on the same plan for the last eight years, for the Risca Coal and Iron Company, and at its cost economy for repairs since was put in. The way I connected them was as follows: The two 1½-in. I have wooden liners on both sides sufficiently thick to throw the side rods wide enough apart to clear the pump barrel and main beam, where the pump barrel rests on; then, the side rods are pinned and strapped together in the usual manner, above and below the pump barrel and main beam, with sufficient length in the side rods to allow for the length of stroke and clearance for packing, &c.; and the rod for the 12-in. former, which is below, starts out of the centre, the same as the above, and so on throughout the whole series. The principal advantage of this plan is, that the one rod will work as many pumps as will be wanted, and the strain is always in a centre line with the ram of the former. This plan was quite new to me when I adopted it, but I believe it was in practice previous to that time. Risca, Monmouthshire, Oct. 1. MORRIS MORRIS, Engineer.

## MINING.

Sir,—If we see smoke ascending from a chimney we conclude fire is below. With equal certainty the proper effect at surface being produced by a hole made in the ground upon finding a deposit of mineral wealth beneath; it may be here or dislocated, by cross-courses or sills, and nipped up to a mere string by hard bars of ground, still, by perseverance, the cause must be found. I think I may state with certainty that all the lodes in Devonshire or Cornwall proved to contain ore in greater or less quantities have exhibited a corresponding effect upon their backs. Why, then, is mining so uncertain as to be called a lottery, where a few prizes are drawn, but many, many blanks? In answer to this question, I ask, Why are the Messrs. Taylor so uniformly successful in their mining operations? Because their mines are not held by a majority of merchants who supply materials at double cost, and managed by capitalists who do not discover them, but work on honest principles, and before laying out money in a vast mine to contain lodes worthy of trial, then work judiciously and spiritedly, with almost a certainty of success. Knowing you to be an advocate of legitimate mining, I annex an account of a mine worked on the above simple rules, and, of course, eminently successful.

In the turnpike road between Okehampton and Exeter is a cutting in Ramsley Hill, exposing several east and west lodes, causters, and cross-courses, of a masterly character, varying from 3 to 12 fms. wide, composed of masses of one best quality, embedded in a light blue clay-slate; these are in immediate proximity to granite, thus presenting features sufficient to warrant a good mine in depth. Some time ago a company was formed to prove them, but the principal object being "jobbing in shares," nothing effectual was done. Hundreds of capitalists, miners, secretaries, and pursers have been through the cutting. Where, then, were the "keen-eyed practicals," to allow such a splendid property to slip through their fingers? Even Nicholas Ennor, the "Invulnerable," has passed, and when enquired of as to its capabilities for mining, pronounced it "the wrong district," which probably accounts for its not being worked before. If he were to pass his way now, he would find the same reasons for changing his opinion that he did in the Ashington district some time ago—a good pile of ore, and plinths working at 3s. or 4s. in the lb.; for after miners refusing to give it an efficient trial, a gentleman in the neighbourhood, reasoning from analogy that an effect, as exhibited in the hill, produced in immediate proximity to granite, must have had a grand cause, proved the lodes to a depth of 35 fms., and has met his just reward. He has thus succeeded in opening a new mining district, which bids fair to rival its wealthy neighbour—Tavistock; the ore being very rich, some of it yielding a price of 20 cent per cwt.—Sticklepath, Oct. 1. C. H.

## MANSHON-HOUSE BUSINESS—WHEEL ZION.

Sir,—Mr. F. W. Stockwell, the plaintiff in the late extraordinary affair, is, I understand, one of the members of the Mining Exchange. If his conduct in the above case, according to their rules, the sooner they are altered the better. It appears that a man may file bills and securities, and if at any time he chooses to enquire where they are, he may find himself liable to be criminally prosecuted before the Lord Mayor, or as I might term this new mode of doing business, he would discover himself "Stockwelled." What Lord C. Clinton or Mr. Jeffrey may do is not for me to enquire; let each man find his own redress; they may probably treat the case as it deserves—with contempt. All and each of us have different tastes: for instance, Mr. Stockwell, who for the edification of the mining world, last Saturday, chose to revive the obsolete punishment of the pillory in his own person, in my opinion, he ought to receive a more fitting punishment; and I do believe that it is the duty of all respectable persons connected with mining to repudiate such nefarious transactions as those disclosed last Saturday at the Mansion House.

We must give Mr. Stockwell credit for some judgment, as it was elicited that some of his questionable work was performed by parties connected with that virtuous and prosecuted convicted publication, *Fuel Fry*—a fit and good companionship. I trust that now these matters are before the public will have sufficient discernment to see with whom they are dealing, and dealers and dealers will learn that they cannot bandy noble and respectable names. Several motives have been ascribed to Mr. Stockwell for his conduct in this matter; many are, however, more lenient, and I, as well as others, imagine that he has been merely the tool of others, just as unscrupulous but more cunning than himself.—Oct. 1. A BURTON.

## THE NATIONAL BRAZILIAN MINING ASSOCIATION.

Sir,—In your Journal of Aug. 23 last, you inserted a letter signed Edward Oxenford, dated the 18th idem, in which is given an extract from his "advertisement in the Brazilian papers." Yesterday, I received from Brazil, per Teukonia, the subjoined translation of Mr. Oxenford's advertisement, as it appeared in the public journals of Rio de Janeiro; and also of the reply which was published by Her Majesty's Consul in that city. Without comment, I request your insertion of the above-mentioned documents in your next Journal. R. SHEPARD, Chairman of the Committee.

Translated from the Portuguese of an article taken from the "Journal do Commercio," a Rio de Janeiro local paper, of August 22, 1857:—

"Having seen in the 'Journal do Commercio,' dated May 24 last, some declarations respecting a society denominated in England National Brazilian Mining Association, I have to make the following observations, to serve as an explanation and a caution to the respectable public:—

"1. This society has no existence in Brazil. It is not registered in any tribunal of commerce in the empire, nor mentioned in any document or title touching the mines, property, or negroes, which in their names they wish to take out of my hands, I being the sole purchaser and the sole payee, as appears from the books of the different societies in Minas Geraes. My rights thus acquired and authenticated, I never transferred to any person or company whatever, which is evident, as there is no payment found for any *share* on such transfer.

"2. This company is equally without a legal position in England, has no set of partnership, nor registration of shareholders. It is one of those denominated scrip companies, the shares give to the bearer a participation in the profits of the mines, nothing more. Thus, it is clear that no combination of holders of shares could confer by procuration powers that they themselves do not possess.

"3. As Brazil is an independent empire, and not a British colony, I refused to avail myself of a tax paid to Government on transfer of property.



myself of my appointment of receiver and manager, made by the Lords Justices, the supreme tribunal of England, and I found it useless in Brazil, and even disreputable to the empire; and firm in this opinion, and confiding in the Brazilian laws, I have also refused to make any reclamation to the English Court of Chancery, notwithstanding that I am the largest shareholder and the largest creditor, being in virtue of my legal position in Brazil the absolute owner, with power to sell, to rent, to hire, or to give freedom, according to my will. I do not, however, desire to avail myself of these powers. Besides which, it is necessary for the payment of the money that are justly due to me, and I am ready, as I have before offered, to submit all the matters in dispute to the decision of two impartial persons, or even to the president of the Commercial Bank of London, or to any other person of equal position and character.

"Let this serve as a reply to the shameful calumnies which have been spread respecting me."

Reply to the above article, translated from the "Journal do Commercio," of Aug. 23:—

"NATIONAL BRAZILIAN MINING ASSOCIATION.—Edward Oxenford having published in the 'Journal do Commercio' of this date, and in the 'Correio Mercantil' of yesterday, a declaration, signed by him, with reference to his circumstances and position relative to the company denominated National Brazilian Mining Association, from which it is easy to draw false inferences, I invite those who have any interest, or desire to possess accurate information on the subject, to appear at the office of this Consulate, where, with much satisfaction, I shall furnish every explanation to the contrary of the declaration referred to."

British Consulate, Rio de Janeiro, Aug. 23, 1857."

## Meetings of Mining Companies.

### THE ARUNDELL COPPER MINING COMPANY, ASHBURTON, DEVONSHIRE.

An adjourned general meeting of shareholders was held on Monday, at which the number of shares held by shareholders, either personally attending or represented by proxies, was nearly 5000.—Mr. SHIRLEY WOOLMER in the chair.

The notice convening the meeting having been read by the secretary, the proceedings of the last general meeting, and of the committees held since, were read and confirmed; and the cash accounts were audited and passed. The statement of receipts and expenditure since the last general meeting, held on the 29th of June last, showed that, in addition to a balance of \$41,118, then in hand, calls to the amount of \$309,454, had been received, making, with some calls of a previous date received, a total amount of \$411,578, against which the total expenditure, including a sum of \$1000, paid on account of a compromise of the claims of Mr. Vaughan France's costs, amounted to \$271,954, leaving a balance of cash in favour of the company of \$139,624.

A statement of assets and liabilities was then presented, by which it appeared that the whole liabilities of the company, including \$2500, the balance of a compromise of the claims of Mr. France, amounted to \$851,158. The assets of the company consisted of the plant and materials, valued at \$1001,158; of the balance of the last calls, still receivable, \$204,654; and cash and securities in hand, \$139,624, making altogether, \$2501,158, giving a present balance in favour of the company, if the last call were paid up, of \$1,649,624. In addition to the calls overdue, there might be some further dividend receivable from the estate of Messrs. Strahan, Paul, and Co. There were also a large number of the relinquished shares, now the property of, and re-issuable by, the company, and some outstanding former calls, the receipt of which was doubtful. It also appeared, from the statement made at the meeting, that the steam-engine, plant, and materials at the mine were in good condition, and all in readiness for operations. In addition to a large quantity of ore-stuff at surface from the former workings, there had also been several tons brought to grass by the operations during this year. This ore, to be made marketable, required crushing and dressing. At present there were no crushing mills or stamps at the mine. In consequence of repeated applications by the patentees, Messrs. Reid and O'Neill, experiments had been tried, with the sanction of the shareholders, on a portion of the copper ore at the mine. Messrs. Reid and O'Neill claimed by their method of treatment to obtain the copper with facility, and at comparatively small expense, from the poorer class of ore; and, under their system, they considered that the poor ores at the Arundell Mine would yield returns of profit after payment of outlay. A furnace, capable of being charged with about 300 lbs. weight at a time, was erected at the mine, but was not in readiness for use. The committee could not, therefore, form an opinion whether by the proposed process the poor ores could be worked with advantage. The experiments were personally superintended by Mr. Reid; but not being completed during the visit of the deputation, and only on a quantity of the crushed ore-stuff, too small to enable the deputation to offer an opinion as to the process, or whether fitted for operations on a large or profitable scale, if quantities of ores of poor quality are raised in future workings.

Mr. Rath, one of the patentees was in attendance at the meeting, and made a statement as to his process. He (Mr. Rath) did not consider the process had been fairly tested; and that funds were required to lay out an apparatus in detail. He had not been prepared to carry out the experiments when the deputation was at the mine, and the result had not been as he (Mr. Rath) anticipated—that the produce from the ore would cover all expenses.

In reply to questions from Capt. Moorhouse, Mr. Rath said, that the furnace not being dry had been very unfavourable to the experiments, and that the cost would not be so great in future experiments. The first experiment was on 36 lbs. of ore, which gave 1 lb. of copper=2 per cent.; the next was on 4 cwt., which gave 3½ lbs.; but, as there was some loss, he reckoned the produce at about 3 per cent., as before; the last was upon 56½ lbs., but he had not had the opportunity of weighing the produce; he should say it was from 1½ to 2 per cent.; 5 cwt. of ore gave nearly 8 lbs. of copper, and 10 cwt. of coal was consumed; but allowances must be made for the waste, in consequence of the furnace being green.

Capt. Moorhouse asked whether he would undertake to return the copper from the poor ores at surface, on condition of his receiving half of the profits for his labour? He thought this a liberal offer, considering that the furnace had been put up and the steam adapted at the expense of the company.

Mr. Rath thought it would be better, if the company would allow him the use of the furnace, for him to try another series of experiments at his own expense, as the merits of the invention would then be more fairly tested.

Reference was made to the report of the general meeting held in July, 1856, and it was there found that Mr. Vaughan France, the then secretary, and for three months their solicitor, then claimed 1112½ 3s. 3d. for costs incurred within that time, subsequently to which date it was stated that more than another 1000 had been also incurred by him.

After long negotiations and law proceedings, commenced by Mr. France against shareholders, and more proceedings, commenced by Mr. France against shareholders, on the 10th of June last, a resolution was passed, on the terms of allowing Mr. France to retain sums of money he had received on account of the company, estimated at about 1200, and to pay him the further sum of 8500; in full of all his claims against the company or individual shareholders.

In consequence of the large number of shares in arrears of call, considered to arise solely from the injurious effect of the Chancery suit pending against the shareholders, an interesting discussion arose as to the power of cost-book companies to forfeit shares. As a rule of the cost-book of this company authorises the sale of shares, it was considered best to adopt that course; and a resolution directing all the shares in arrears to be forthwith absolutely sold was unanimously passed.

The committee were re-appointed, and also the purser and secretary, and their satisfaction at finding that the former favourable views as to the mine are supported by the latest reports; and stated their concurrence in the views stated in the report of Mr. John Hitchens, and their regret that ample capital was not readily supplied, to give effect to his recommendations; and deeply feel that it is only from the effects of such proceedings as those which it has been the misfortune of this company so unexpectedly to encounter, that such capital is not immediately available.

### SITHNEY WHEEL BULLER COMPANY.

An adjourned general meeting of the adventurers was held at the offices of the company, Graham House, on Thursday, —Mr. R. T. ALISON, in the chair.

Mr. WATMORE read the notice convening the meeting, and the minutes of the last. Mr. RAWLINSON read the resolution passed at the last meeting, it was agreed that the 80 cross-cut north should be driven; but, according to the information that had since been obtained, it was found that they had driven through the ledge, and that it was useless to proceed in that direction any farther, and that the latter part of the resolution be rescinded.

Mr. OWEN suggested that they should confirm the minutes of the last meeting, with the exception of that part that recommended driving the 80 cross-cut north.

The CHAIRMAN said there appeared to be some misapprehension as to the operations at the mine.

Mr. RAWLINSON said, at the last meeting it was agreed that they should drive the 80 cross-cut north with all possible speed; but Capt. Bryant recommended that the east ground should be worked vigorously, and he believed it was agreed a year and a half ago that operations should be carried on at that portion of the mine. Capt. Bryant suggested that the best plan was to clear up the adit, and one or two of the old shafts, and then determine what course should be taken.

Mr. EDWARD CHASE said the eastern ground was always considered the richest part of the mine. The adit was a mile in length, and might cost 10000, or 20000, to clear it up. If they worked the eastern part it must be by steam power.

Mr. COX said their expenses were 65s. a month, and that they were merely working for another company.

Mr. EDWARD CHASE considered they had better wait the result of the driving the cross-cut in Wheel Metal, before they made any alteration.—It was then unanimously agreed that the 80 cross-cut north should be abandoned forthwith.

Mr. COX considered they would never have justice done in the present state of things; they were merely tools in the hands of other parties. Upwards of 11,000, had been spent, without any benefit to the shareholders.

Mr. OWEN proposed a resolution to stop the working of the Sithney Wheel engine from drawing the water at Wheel Metal, and that all operations be suspended in the western part of the mine.

The CHAIRMAN having assured the meeting that all the questions alluded to would have every attention by the Great Wheel For committee. Mr. Owen agreed in good faith to let the resolutions proposed stand over. A call of 5s. per share was then made, payable by two instalments.

### THE LIBERTY MINING COMPANY.

A special general meeting of the shareholders was held at the London Tavern, Bishopsgate-street, on Tuesday, —Mr. RINDALL in the chair.

Mr. BOON (the secretary) read the notice convening the meeting, and the report of Mr. Conquest, managing director, from which the following is condensed:—"When I arrived at the mine, on March 9 last, I found everything at a dead lock. There was no ore at grass for the purpose of stamping, the 150-horse engine was sadly out of repair, the 15 stamps rotten, and the 24 stamps in bad condition. Two Chilian mills only were fixed, and these had not been used for some time. The debts of the company amounted to \$16,000. Crow's engine and the saw mill had been mortgaged for \$1000, and thus lost to the company. Money had been taken up at the rate of 40 per cent. per annum, and delay and ruin was evident on every side. The last two winters had been unusually severe for Virginia, and a heavy fall of rain in January had broken in the main timbers of the Poplar branch, from whence we obtained all our best ore during the summer of 1856. The north whim-shaft had also fallen in, but was made ready again for use the day before I arrived. By my accounts for the month of August, you will see that the total expenses, including all salaries, and an allowance of \$600 per month for wear and tear of machinery, amount to \$1250-78, thus showing a reduced expenditure of full \$2000, as compared with the expenses of last year. The returns per month were as follows:—First 23 days produced 49 cwt. 8 dwts. 12 grs.; or \$930; second 24 days 48 cwt. 19 dwts.; or \$974; third 25 days, 61 cwt. 8 dwts.; or \$1228; showing I made a net profit on the past month. The judg-

ment debts amounted to \$7305-93, upon which we were paying 40 per cent. interest; this amount has now been reduced to a bill for \$1200, which falls due on the 29th inst. The balance of other old debts, &c., amount to \$7285-64, making a total of liabilities up to Sept. 1 of \$14585-64. My sincere conviction now is, that your property contains all the essential elements of success; that if freed from debt, it will speedily pay an honest dividend; and if steadily conducted with honesty and economy, it will most assuredly continue to pay dividends with regularity and certainty."

Mr. CONQUEST produced the bar of gold made the last month, weighing 61 cwt. 8 dwts., and which he stated was worth 41. 1s. 6d. He also read two reports, from Mr. Saunders and Capt. Johnson, which recommended sinking the engine-shaft, and confirmed Mr. Conquest's report as to the favourable prospects of the undertaking.

Mr. FREEMAN said they had only 15 men at work, but if they had a large force (say 200), he had no doubt they would make a good profit.

Mr. CONQUEST said if he had 30 men he would make a good profit; and he thought he might congratulate them that the mine was now paying expenses. He would require about 20000; 17000, to pay off all liabilities, and 3000, to sink the shaft, and it was desirable that he should leave England on his return next Saturday.

Mr. GOODFELLOW reminded the meeting that they did not pay the 17000, it would cost them 7000, for 12 months' interest. As an old shareholder, he had every confidence in the affair, and hoped Mr. Conquest would be permitted to carry it out.

Mr. CONQUEST said they were down 90 ft., and if they sank 120 ft. he had no doubt they would cut rich veins of ore, and it seemed a great pity to abandon the property after expending so much money.

Mr. GAZON said that the report of Mr. Conquest proved that he (Mr. Gregg) had made more gold than had been made at the mine during any year it had been in possession in the company, at \$10,000 less cost. Mr. Conquest had made \$3000 worth this year up to September, but last year nearly \$6000 had been made.

Mr. CONQUEST denied the truth of Mr. Gregg's statement, and made some remarks reflecting on his management at the mine.

The CHAIRMAN said that, before they condemned Mr. Gregg, they should recollect that he had not been able, from want of funds, to carry out the operations he had recommended as essential to the prosperity of the mine.

Mr. FREEMAN believed that if sufficient funds had been supplied, they would have been at the present time in a dividend-paying state.

Mr. CONQUEST said if the 20000, was now advanced, it could be paid out of the sale of the property; if they should wind-up, the original shareholders would suffer no injury by such a course, for if the money was not subscribed they would lose their property.

The CHAIRMAN said if the shareholders had kept faith they would not have had to-day to call for money. Mr. Conquest had fairly stated the case, and it was for the meeting to decide the course to be pursued. The board had summoned a meeting of the principal shareholders last week, and they were of opinion the best plan was to issue preference shares of 11. each at 10s. per share, to bear 10 per cent. interest.

Mr. CONQUEST, in answer to a question, said he considered the mine worth 10,000. A resolution was then unanimously passed for raising 20000, upon preference shares at 50 per cent. discount. A resolution was also passed, that all the original shares now out, if not sent in within 21 days for exchange, be deemed forfeited. Mr. Conquest resigned his appointment as director, which was accepted, and will go out merely as manager.

Votes of thanks to the Chairman, directors, and Mr. Conquest, terminated the proceedings.

### LINEARES LEAD MINING COMPANY.

The half-yearly general meeting of shareholders was held at the offices, Queen-street-place, on Tuesday, Mr. Wm. WARNE in the chair.

The CHAIRMAN declared the number of shareholders present sufficient to render the meeting legally constituted, and the SECRETARY (Mr. J. B. COLEMAN) read the notice convening the meeting, the report of the directors, and of the superintendent of the mines.

The directors reported that it was one of the most satisfactory statements which they had been able to present to the shareholders. There had been no falling off in the mine, the reserves being still 13,000 tons. The operations of the past six months had been so satisfactory that the directors deemed it desirable to commence the formation of a reserve fund, which they deemed gave them power to do, and had, therefore, invested the sum of 123 12. 7½, being one-tenth of the half-year's profit, in Three Per Cent. Consols. A dividend of 5s. per share was declared in July, and another of 6s. 8d. per share would be paid in Oct. next, both of which were in respect of profits made during the half-year ending June last. In consequence of the increasing difficulty of obtaining fuel at Lineares, arrangements had been made to secure a supply of coal from Cordova; but smelting works must be erected in the vicinity of the Cordova coal field, and it was considered most advisable to purchase works near the city of Cordova. An eligible site had been found, and an expense of from 40000, to 50000, would cover the cost of buildings, furnaces, and tools necessary for reducing 100 tons of ore per week; 10000, more would be required for everything for another 50 tons per week. No time should be lost in carrying out the arrangements submitted to the shareholders. The mine had been inspected by Mr. Henderson, and the whole of the accounts there had been thoroughly examined; the site referred to had also been visited by him, and his reports upon both were highly satisfactory. The reports of Mr. Thomas and the other agents in Spain were then read, as was that of Mr. Rundle, the superintendent of the smelting works. The statements of accounts to June 30th, which were submitted, showed:—

BALANCE-SHEET.	
Capital account .....	£54,711 2 6
Instalments on B shares .....	3 0 0
Profit and loss, balance to date .....	12,340 12 2
Liabilities—consisting of bills payable, 12,635 15s. 4d.; bankers at Madrid, 8900 18s. 10d.; deposits by workmen, 484 18s. 5d.; sundries, 1074 3s. 2d. ....	22,285 17 0 = £98,240 11 8
Mines, buildings, and machinery .....	£22,732 15 7
Cordova depot, plant account .....	2,521 13 0
House at Lineares .....	410 9 11
Stock—lead, fuel, ore, &c. ....	42,303 14 7
Cash in London and at Lineares, due by Cordova depot, and on lead sold, bills receivable, advances to carriers, &c. ....	23,371 18 7 = £98,240 11 8
COSTS AND RETURNS.	
Proceeds of ore smelted, and surplus beyond estimate in previous accounts (deducting 42890, produce taken from stock in hand in Dec. last) .....	£51,971 4 10
Mining and smelting cost, fuel, carriage, and charges in Spain .....	£29,069 10 11
Expenses in England .....	508 18 5 = 30,578 9 4
Leaving balance, being profit .....	£12,392 15 6

The CHAIRMAN said that the reports of the directors, and of Messrs. Thomas, Randle, and the other agents in Spain having been read, it became his duty to move that the reports, balance-sheet and accounts be received and adopted. In the reports they had nothing to qualify or retract; they presented the truth of the prospects of the mine according to the opinion which the board entertain. It must be evident that with the increasing operations of the mine the reports could not be much shorter than at present, and this would account for the length of the report which had just been read. With regard to the increasing difficulty of the supply of fuel, he thought that had been so fully referred to in the report that he need not further allude to it; and he was sure that the shareholders would consent to any steps which the directors might take to increase the profit, which would come into their pockets. As to the reserve fund, they had now laid by a nest egg, and he hoped they would go on increasing. The dividends, as the accounts would show, were out of the profits made during the half-year. The directors could have made a somewhat larger dividend, but he thought the shareholders would admit that they had acted wisely in doing as they had done. The Cordova works were, from the fact of the failure of the supply of native brass, a most desirable acquisition to the company. He then moved that the report and accounts be received and adopted, and that the directors and superintendent's reports be printed for circulation among the shareholders.

Carried unanimously.

Mr. BRANWELL enquired how the proposed expenditure for the smelting works was to be provided for?

Mr. COX explained that their capital account was 58,0000, out of which they had spent 25,0000. Up to the present time the difference had not been an available balance, but, in consequence of the interest taken with regard to the production of the mine, they had now 20,0000, lying at interest at Overend, Gurney and Co.'s; so that they would be able to erect the Cordova works without any difficulty, and the beneficial effect would very soon be felt by the company.

In reply to a shareholder, Mr. JOHN TAYLOR stated that the railway was progressing from Seville to Cordova; but in his opinion their carriage to the coast would not be materially cheapened, as he did not think that the Spaniards charged very low rates for transport. They could bring down the ore to Cordova; and, as there were 14 or 15 steam-engines already employed in the Lineares district, they could always ensure an ample amount of back carriage.

Thanks were then voted to the Chairman and directors, and acknowledged, and the meeting separated.

### STRATHALBYN MINING AND SMELTING CO. (LIMITED.)

An extraordinary general meeting of this company was held at the offices, 11, New Broad-street, on Friday, Sept. 25, for the following purposes:—

- 1.—For the purpose of determining by special resolution, pursuant to the 68th clause of the Articles of Association of the said company, whether the present board of directors, or any or either of such directors, shall be removed before the expiration of their or his respective period of office.
- 2.—In such case, for the purpose of appointing other or another qualified person or persons in their or his stead, if the meeting should think fit.
- 3.—To determine on the number of directors which shall form the board, and to reduce or increase the present number of directors accordingly; and in case the said meeting should determine on increasing the present number of directors, to appoint some qualified person or persons to the office of director.
- 4.—To determine whether the registered offices and the affairs of the company are to continue and be conducted in London.

There was a numerous attendance of shareholders.

Mr. WICKWORTH, the late Chairman of the board, stated that by the Articles of Association of the company a special resolution was necessary in order to remove any director from office, and, consequently, without the voluntary act of the directors it would require the votes of three-fourths in number and value of the shareholders present in person, or by proxy, and they had taken with regard to this resolution by a subsequent meeting, in order to effect a change in the present management; but in order to leave the hands of the shareholders wholly unfettered, the directors had unanimously resolved to vacate their seats, so that the votes of a simple majority might operate. The first duty of the meeting would, therefore, be to elect a Chairman.

Mr. JOHNSON proposed, and Mr. THOMPSON seconded, that Mr. Thos. Wickworth take the chair. Whereupon it was moved by Mr. BUNNARD, and seconded by Mr. HENRY, that Mr. C. Locock Webb take the chair.

Mr. WEBB requested that his name might be withdrawn, and that he should have great pleasure in supporting the resolution, which was then carried unanimously. Mr. WICKWORTH having taken the chair, the SECRETARY read the notice convening the meeting.

The CHAIRMAN stated that it devolved upon him to make a few remarks. The meeting had heard the notice of the business to be transacted read, and it would be for the shareholders to take the initiative in the matter. In addition to the directors forming the late board, three gentlemen who were qualified had given notice of their being candidates—Mr. Fullerton (one of their auditors), Mr. Burt, and Mr. Holland. The CHAIRMAN apologized for taking the initiative in the matter; he did so that the meeting might at once proceed to business. It was always his desire in meetings,

such as the present, to discuss principles and avoid, as much as possible, any reference to personal questions, and this he would do on the present occasion; at the same time, in consequence of a circular, dated Sept. 1, which had been issued by the Liverpool shareholders, the necessity of alluding to personal questions was forced upon him. Although in that circular an attack had been made on him, no copy of the circular had been forwarded to him, and it was only indirectly that the circular itself had come to his knowledge. First, then, as to the principles on which the company should be governed. From the reports which had been received from the company's agent in Australia, there would appear to be good reason to believe that the company possessed a valuable property, which, if properly developed, would seem to promise success. It was, therefore, in his opinion, the proper course to take all necessary means for testing the correctness of those reports by active and judicious operations. If success were to be achieved, it was surely the best policy that this should be done with the least possible loss of time; so on the other hand, if the result should prove that the reports were ill-founded, then it would, in like manner, be equally politic that the shareholders should learn at the earliest moment that further operations were futile. The business of the day was of considerable importance—it was for the meeting to determine to whom the management of their affairs should be entrusted; here, again, upon principle he advocated the election of gentlemen of experience and business capacities, who on the one hand would direct the operations with judgment, and on the other with a due regard to economy. He could not approve, in all respects, the management; errors had been committed, but he thought errors in judgment only. The company's agent in Australia had not been properly supplied with funds, and the consequence had been that debt had been incurred, and the company had, in the end, to pay at least 50 per cent. beyond the ready money price for goods. It was erroneous to suppose that the directors could check expenditure by withholding supplies; if they appointed an agent, he was authorised to act, and to the extent, at all events, of his instruction to incur liabilities. If the agent exceeded his powers, or was mismanaged; errors had been committed, as he understood Mr. Squares gave full satisfaction; he alluded to the above matters only as showing the chief ground on which past errors had arisen. Mr. Webb then alluded at some length to the circular issued by the Liverpool shareholders on the 1st of September, as containing misstatements as to facts. He did not charge the gentlemen who signed that circular with having sought wilfully to deceive the shareholders, at the same time, he must observe that, morally speaking, the act was to be condemned, whether gentlemen signed a paper without taking the trouble to enquire as to its correctness, equally as if they had signed it knowing it to be wrong. He regretted to see the name of Mr. Holland attached to this circular; he felt that this would not have been the case of Mr. Holland had been aware of how the facts stood. Then, as to the gentlemen proposed by the Liverpool committee: he went with them in this—that gentlemen should be appointed who were efficient, and, at the same time, would observe economy; but he did not see how the Liverpool list would effect this. They proposed to leave out of the board Mr. Buller, a gentleman who probably knew more of mining matters than any of them, and they proposed to leave in the board a gentleman of no business experience. They proposed Mr. Burt, a gentleman who had only been qualified ten days before the last general meeting. Then, as to economy, he was at a loss to understand how the introduction of five gentlemen from Liverpool could conduce to economy. There was one Liverpool director in the late board, and, in addition to his share of directors' remuneration, his claim for travelling expenses for five months was 400. At this rate the travelling expenses of the Liverpool directors would be 5000 a year. Mr. Webb objected, that it was improper to elect a gentleman as a director who was indebted to the company. He protested against the use of the proxy of that gentleman. A shareholder, holding a very considerable number of shares, had withdrawn his proxy from the Liverpool committee, and another had written that he had given his under a misapprehension of the facts of the case; he, therefore, submitted that that proxy should not be used. As regarded himself, he (Mr. Webb) had no wish whatever to become a director; he had consented to be put in nomination only upon the request of several influential shareholders, and he would readily resign his directorship (if elected) in favour of any London shareholder who could serve the company better. Mr. Webb concluded by moving that the following gentlemen be directors of the company:—Messrs. Winkworth, Thompson, Buller, Fullerton, Johnston, Holland, and Webb. Mr. BUNNARD seconded the motion.

It appearing by the wish of the meeting that the names should be put *seriatim*, Mr. BUNNARD proposed Messrs. Winkworth and Thompson, who were unanimously elected; he then proposed Mr. Buller.

Mr. BURT proposed an amendment the election of Capt. Currie as a director, and stated that it was quite true that he (Mr. Burt) was only registered for a small number of shares until within a few days of the last meeting, but he was possessed of other shares, which were registered in the name of his clerk. He proceeded at some length to reply to Mr. Webb's observations, and contended that it was not expedient that a director should be the brother of a paid secretary.

Mr. HOLLAND seconded the amendment, and with considerable warmth repelled the charge which had been brought forward as to the Liverpool circular.

The amendment, having been put to a vote, was declared, on a show of hands, lost. Mr. HOLLAND suggested that one poll should be taken on the whole list, to avoid the necessity of a poll on each separate name, and this course having been acquiesced in, Mr. WEBB proposed the remaining gentlemen on the list.

The motion was seconded by Mr. BUNNARD.

At the suggestion of Mr. HOLLAND, Mr. Longhouse, whose name was included on the list, withdrew from the contest.

Mr. BURT then moved, and Mr. HOLLAND seconded, the following gentlemen as directors:—Capt. Currie, of Brighton, Messrs. Taunton, Johnson, Burt, and Holland, of Liverpool.

The amendment having been put, was declared to be lost on a show of hands, and the original resolution carried, whereupon a poll was demanded.

The CHAIRMAN appointed Mr. Stevens, and the mover of the amendment appointed Mr. Oldham, to be scrutineers.

Mr. WEBB then proposed, and Mr. BUNNARD seconded, the following resolutions:—That the number of directors be at present limited to seven.—Carried unanimously. That the registered offices and the affairs of the company continue, and be conducted in London, which was also carried, there being but one dissentient voice.

At 6 o'clock the scrutineers brought up their report, showing that 132 shareholders, 3702 votes, were in favour of Mr. Webb's list; 68 shareholders, 2405 votes, against; majority, 64 shareholders, 1297 votes, and the Chairman declared the same accordingly. The directors elected, therefore, were—Messrs. Winkworth, Thompson, Buller, Fullerton, and Webb, of London; and Messrs. Johnson and Holland, of Liverpool. The proceedings terminated with a vote of thanks to the Chairman, which was carried by acclamation.

AUSTRALIA.—It is a matter of importance to mention, for the information of our readers who are interested in Australian affairs, that henceforth, on the arrival of the mail, a Circular of colonial stocks and shares will be published in London by Mr. William Westgarth, who is the head of the firm of Messrs. Westgarth, Rose, and Co., of Melbourne. The first number appeared on Saturday last, and it is a source of great satisfaction to the London merchants and others, to find that there is now a reliable means of obtaining the official and latest quotations, without the disadvantages and omissions, in many cases, which occur in private communications. We cannot, in fact, do better than to quote *verbatim* the remarks of Mr. Westgarth himself, as respects the position of all monetary matters in Victoria, which is concise and clear, and defines exactly the general state of the Melbourne money market. He says:—"The latest debenture issues advised from the colony (Victoria) were in June, consisting of 180,000, in sums of 1000, bearing interest at 6 per cent., payable at option in Melbourne or London. Tenders were accepted for 70 debentures, due Jan. 1858, and 130 due Jan., 1859, together 200, at 103½. 2s. 8d., taken up by London account; and 1000, in equal proportions, 1853 67, at 103½. 9s. 6d., taken by the Savings Bank for local investment. The remaining 600, due 1860-61-62, were subsequently disposed of at 103½, 104½, 5s., and 104½, respectively, and were bought chiefly for colonial account. The Government have proposed, and the Legislature will probably sanction, a further loan for 1857, of 700,000. Of this amount, 640,000, is for the prompt procedure with the main trunk of the Mount Alexander Railway, and 60,000 for the total cost of the patent clip now being completed at Williamstown. The Geelong and Melbourne Railway was opened from Geelong to Williamstown, 43 miles, on June 26 last. The completion of the line to Melbourne depends on the construction of the Melbourne and Williamstown line, which is not expected to be finished for another year. A new company, the Australasian Fire and Life, has been successfully projected in Melbourne. The City of Melbourne Gas Company, in the second year of dividend-paying, has advanced the rate from 5 to 15 per cent. The dividend of the Melbourne and Hobson's Bay Railway Company has this year been increased from 8 to 14 per cent. The coin of the Sydney Mint has at length been proclaimed a legal tender in Victoria, under the order of the Queen in Council, of Oct. 18, 1854, extending to all the Australasian colonies. The European and Australian companies have reduced their freight charges on gold from Melbourne to England, as San Francisco, to 3½ per cent., or about 7d. per ounce.

In the absence of the mail from South Australia, our intelligence from Adelaide is very limited; in fact, only that which the Melbourne papers and letters make mention of. The principal topic of interest seems to be the discovery of fertile lands in the interior, with a fresh-water lake, which is designated a perfect "paradise." Mr. Goyder, who has explored the regions between Lake Torrens and Mount Serle, has published his report of the expedition, in which he informs us positively that "we have a fresh-water lake in the interior of the colony, where we scarcely dared hope for more than a stony desert or a salt marsh; describes romantic scenery, noble hills, fertile valleys, grassy plains, numerous birds, animals, and even human inhabitants, gushing springs and flowing creeks, where we had deemed there was nothing but aridity and desolation, suggests higher hills, richer country, and more extensive waters beyond the limits of the present expedition, but within the vision of the party." The value of the Burra Burra shares is without change. Further discoveries of copper ore, of value and extent, have been made north of Adelaide, on the property of Mr. Chambers. The *King Philip*, screw clipper, is now out 69 days from Melbourne with the South Australian mails, and may, therefore, be hourly expected. Her dates will be four days later from Melbourne than those recently received by the overland mail.

The *Independent*, a Western Australian journal, alludes to great mining progress in that province, and says that the shares in the Waverock Mine are now trading at 100 per cent. premium—a rapid advance for the short period that they have been issued.

From Tasmania, we learn that the yield of the precious metal is increasing in the Fingal gold fields, where the gold was nuggety and rough, some of the pieces weighing 3 or 4 dwts. The remainder of the diggers were at the lower gullies, and were doing well; in fact (says the letter), "we are all doing well at present." Other discoveries near the South Esk river have been made, where one feature, peculiar to this amongst the many localities in which gold has now been discovered in Tasmania, is the occurrence of tin ore with the precious metal.

At the Holywell (Flintshire) County Court an action was brought by Mr. James Eytton, of the Mostyn Foundry, against Mr. Wm. Ramesden, mine agent, to recover the amount of some coals



## FOREIGN MINES.

element is a 10.5 mm. x .75 mm. x .75 mm. cube. The element is made of glass.











42 south we have driven through a lode about 5 ft. wide—poor; we are still driving south. In the 30 east the lode is 2 feet wide, composed of gossan and spar—poor. We have holed Nicholls's shaft to-day to the rise in back of the 15. In the tribune pitheas no alteration.

**WHEAL TRELAUWY.**—W. Jenkin, W. Bryant, Oct. 1: Smith's shaftmen are still engaged in cutting a pit at the 143 fathom level. The lode in the 143, north of Smith's shaft, is 1½ ft. wide, and worth 10½ p. fm. In the same level south it is 3 ft. wide, and worth 7½ p. fm. The lode in the 130, north of Chippendale's shaft, is 2½ ft. wide, and worth 10½ p. fm. In the 108, north of Chippendale's shaft, it is 1½ ft. wide, and worth 10½ p. fm. In the 94, north of Chippendale's shaft, it is 1½ ft. wide, and worth 10½ p. fm. In the 80, north of Chippendale's shaft, it is 1½ ft. wide, and worth 10½ p. fm. In the 66, north of Chippendale's shaft, it is 1½ ft. wide, and worth 10½ p. fm. In the 52, north of Chippendale's shaft, it is 1½ ft. wide, and worth 10½ p. fm. In the 38, north of Chippendale's shaft, it is 1½ ft. wide, and worth 10½ p. fm. In the 24, north of Chippendale's shaft, it is 1½ ft. wide, and worth 10½ p. fm. In the 10, north of Chippendale's shaft, it is 1½ ft. wide, and worth 10½ p. fm. In the 130 south, the lode is 2½ ft. wide, and worth 10½ p. fm. The slopes and pitches are much as usual. We sampled on Friday last, the 25th Sept., a parcel of crop lead ore, computed 90 tons, for sale on the 4th inst.

**WHEAL TREMAUNE.**—R. Williams, J. Williams, Sept. 28: At the boundary line-shaft the shaftmen engaged cutting ground in the 113 for eastern and doors to fix the plunger lift; in the same level, east on Allen's branches, the branches are yielding good stones of tin, having a kindly appearance for further improvement; the slope in the back of the same level is yielding low price tin stuff. In the 105, east of Allen's shaft, on Allen's branches, the branches have been disordered by floors of spar, which are now disappearing, and the ground looking more congenial, the branches at present are worth 8½ p. fm; the slopes in back and bottom of the same level, east and west of shaft, are worth on an average 17½ p. fm. The ground in bottom of Allen's shaft, sinking under the same level, is favourable for sinking, it being on course of the Bookan. The slopes in bottom of the 73 east of the same shaft on Allen's branches, are worth on an average 7½ p. fm.

**WHEAL TREVELYAN.**—J. D. Osborne, Sept. 28: Yesterday we held our monthly setting: The 50 cross-cut, to drive north from Watson's engine-shaft by eighteen, 2 fms. or thereabouts, at 160 p. fm. The 40 to drive west on Richard's lode by four men, 2 fms. or thereabouts, at 50 p. fm. Our tribute department is much the same as last month.

**WHEAL UNION.**—T. Glanville, Sept. 30: I have no material alteration to advise you this week. The lode in the 30 fm. level, west of the engine-shaft, is 1½ ft. wide, mixed with yellow ore.

**WHEAL ZION.**—J. T. Phillips, Sept. 30: We have broken some very good quality yellow ore on the north lode, in the rise in the back of the 50; the lode is producing about 1 ton of ore to the fm.; this shoot of ore appears to be lengthening as it goes deeper. The cross-cut towards the 50, in the 65, is progressing satisfactorily. In the 50 east the main lode is large, composed of spar, capel, and muddle, with spots of copper ore occasionally. In the 65 east end we have a large lode, letting out a great deal of water; the same remark will apply to the 80 west. We expect the Giebe adit is near the lode, having a favourable change in the ground.

**WHITCHURCH DOWN CONSOLS.**—H. Hill, Sept. 28: We have sunk a trial-shaft 3 fms. on the newly discovered lode, which is 8 ft. wide, underlying north, composed of splendid gossan, spar, muddle, capel, and copper ore. The stratum is all that can be desired for the production of mineral; this lode is proved of the same character upwards of 40 fms. east and west of the shaft; during the past week this lode has been opened upon west of the river by the Devon Great Consols Company who have proved the continuance of the same lode to be 8 ft. wide, 4 ft. of which is good copper ore. This has caused great excitement in the neighbourhood, many agents have been attracted to the spot, who all pronounce this lode to be the same as that opened upon in Whitchurch Down. A short time since a parallel lode was discovered, taking the same bearing, and found equally productive for copper ore. These lodes are supposed to be a continuation of the rich lodes of Devon Great Consols. It is intended to sink 10 fms. upon the course, which is likely to yield an abundance of copper ore.

**WHEAL ZION.**—J. T. Phillips, Sept. 30: The discovery in the river west has caused much excitement the lode being found rich for copper ore. Captain Williams and others who have examined this lode are of opinion that it is the same as we are sinking upon in Whitchurch Down Consols. We shall lose no time in sinking upon it in the Down; and if found as productive, it will enhance the value of the property considerably.

**WILLOW BANK.**—J. Sanders, Sept. 28: In consequence of the long continuance of dry weather there has been very little work done in the 30 during the past week, but I am happy to say we have had some showers, which have enabled us to fork the water again. On Saturday morning, being our setting-day, the following bargains were set:—The 30 to drive east by six men, 3 fms. stent, or the month, at 31 p. fm. The 30 to drive west by four men, 2 fms. stent, or the month, at 7½ p. fm. The 17 to drive west by six men, 2 fms. stent, or the month, at 7½ p. fm. The 30 east has been driven 3 fms. 1 ft. from shaft, at which place the lode is from 4 to 8 ft. wide, with a quantity of water issuing from it, strongly impregnated with copper, and has a more promising appearance than last reported. The 30 west has been driven 2 fms. 6 in. from shaft, where the lode is from 2 to 3 ft. wide, rather unsettled at present. The lode in the 17 west has much improved in size, being at present all the width of the end, and part of it now standing to the north, producing stones of lead ore occasionally, but not sufficient to value. The adit level has been driven 5 fms. 8 in. in the past month: total driven from commencement 72 fms. 5 in. There are from 3 to 4 fathoms more to drive to hole to the Boundary shaft, which I expect will be done in about a fortnight. The lift is fixed at the shaft ready to fork the water as soon as we can get sufficient water for the engine to do so.

**WEST GRENVILLE.**—S. Berryman, Sept. 22: I had there is a cross-cut taken up from Tryphena lode, about 54 fms. east of Vivian's shaft (on a cross course), which is being driven south about 95 fms.; in driving this distance they have intersected three different lodes, which I shall describe as follows:—No. 1 lode is 42 fms. 5 ft. south of the above lode, and is opened on by very little east or west. No. 2 lode is 8 fms. 5 ft. south of No. 1; on this lode there are about 7 fms. of ground opened, 5 west and 2 east, from which some very fine stones of copper and tin have been broken. No. 3 is 34 fms. south of No. 2; this lode is opened on about 5 ft. east, and the same distance west of the cross-course; there have been broken from this lode very good stones of copper ore. The present cut is extended 10 fms. south of lode No. 3; I should say the main lodes are still further south; and looking at the channel of ground these lodes are in, I consider it a good speculation.

**COLLIERS' MEETING—FUND FOR THE BEREAVED.**—A numerously attended and well conducted open-air meeting of colliers was held at the Cross Keys, Hoyland Common, on Monday, to promote the movement for an enactment for a small embargo on the coal got, to establish a permanent fund for widows and orphans from mining accidents. One speaker condemned the apathy of the colliers, and said if only a penny a week were required not one in ten would pay; any fund, therefore, must be raised by Government or legislative enactment. He also urged an apprenticeship; for it was a great mistake to put a Davy lamp into the hands of a man, and leave him to suppose himself safe; it was rather an indicator of than a preserver from danger. It was stated that several of the Government Inspectors were in favour of a permanent fund, and of a better education for colliers. A committee was formed to assist in carrying out the Miners' Bill next session.

The ALLIANCE (FRANCE AND ENGLAND) BANK recently held a meeting at the London Tavern, as reported in another column, at which it was considered desirable to get it officially quoted on the Stock Exchange, and a memorial was signed by the shareholders present at the meeting to the committee for that purpose. It appears that this company was originally constituted in 40,000 shares, with a capital of 800,000l., and the ground for refusal on the Stock Exchange was, that the whole of the capital was not paid up. The company has since been remodelled, in 10,000 shares, with a capital of 200,000l., all of which has been fully paid up; and the directors have great confidence that, under these circumstances, the memorial of the shareholders will be favourably entertained by the committee of the Stock Exchange, and the company admitted on their list. With regard to the success of the concern, it may be merely necessary to state that in March last they paid a dividend at the rate of 16 per cent. per annum, legitimately earned out of profits, after deducting 6331l. 19s. 6d. on account of a reserve fund, and to meet bad and doubtful debts. The business during the first six months of the present year was at the rate of above 8,000,000l. sterling per annum, being more than double that of the previous period. The bank's customers and correspondents have increased in a like ratio, and from the sound nature of the business the directors look forward with confidence to a steady increase of prosperity. The total amount of profits up to June 30 was 23,147l. 1s. 6d., and the business for the half-year 4,111,794l. 2s. 1d. The profit included the sum of 6331l. 19s. 6d. accrued to the reserve fund, thus leaving the net profit for the half-year 16,815l. 2s.; the company being constituted in France, they can only declare dividends annually; but the law allows the payment of interest at the rate of 5 per cent. per annum, at the expiration of the first six months on account of the annual dividend, and the earnings of the bank permitting it, the directors proposed to divide that amount, equal to 6000l. We are informed that the affairs of this company have been more than usually fortunate, and that it promises to rank with some of the best banking establishments of the day.

**NEW DEVELOPMENTS OF THE COAL TRADE.**—The development of new collieries in South Durham is progressing quite in proportion to the building of the iron furnaces. Messrs. Collier and Co. are sinking at Shekburn, on the Dearness Valley Railway; Messrs. Straker and Love are opening out a colliery near Brandon on the Auckland branch; Messrs. Bainbridge, Spark, and Co. expect to send coals during the ensuing month from Elm Park Colliery, near Towlaw; the Black Boy new winning will come into operation immediately; and Mr. Pease will be ready at Stanley Colliery, near Crook, as soon as the branch railway is completed—say in about two months—and also at Brandon Colliery, on the Dearness Valley. These new collieries will form in the aggregate an important addition to those already in operation. Some of them are on an extensive scale.—*Stock Exchange.*

**STEALING TIN ORE.**—Emily Chadwick (aged 19) has been convicted of stealing a quantity of valuable tin ore from the works of the Pedn-ar-dre Tin Mine. It appeared from the evidence that this system of plunder has been going on for a considerable time—the high price of tin, the prime quality, and the facility for removal, no doubt, being the great temptation, together with one or two parties who readily buy it from such girls at a very low price.

The railway now in course of construction from the Devon Consols Mine to Morwellham will pass through some of the most charming scenery in the kingdom. It will skirt the top of the most beautiful woods and rocks that are seen from the Tamar, and are so much admired by all visitors. When this railway is completed upwards of 70 houses that are now employed in carriage of ore and material, belonging to Messrs. Norrington and Co., will be dispensed with, which will be a great saving to the adventurers.—*Local paper.*

## The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET, London, October 2, 1857.

COPPER.		£. s. d.	FOREIGN STEEL.		Per Ton.
Copper wire	p. lb.	0 1 3/4	Swedish, in kegs	22	0 0
ditto tubes	do	1 4 1/4	to arrive	21	0 0-21 15 0
Sheeting and bolts	do	0 1 1/4	Ditto, in faggots	22	0 0
Bottoms	do	0 1 1/4	English, Spring	18	0 0-23 0 0
Old (rough)	do	0 1 0	QUICKSILVER	p. lb.	2 1
Best selected	p. ton	124 10 0	Foreign	30	10 0-30 15 0
Tough cake	do	121 10 0	To arrive	30	15 0-31 0 0
Tin	do	121 10 0			
South American	do	120			
IRON.		per Ton.	SILVER.		per Ton.
Bar, Welsh, in London	do	8 10 0	In sheets	36	0 0-36 10 0
Ditto, to arrive	do	8 0 0			
Mail rods	do	9 0 0			
Stafford, in London	do	9 5 0-10 0 0	English, blocks	140	0 0
Bars ditto	do	9 10 0-10 0 0	Ditto, Bars (in barrels)	141	0 0
Hoops ditto	do	10 7 6-11 0 0	Ditto, Refined	144	0 0
Sheet, single	do	11 0 0-11 10 0	Banco	139	10 0-140 0 0
No. 1, in Wales	do	4 10 0-5 0 0	Straits	139	0 0
Refined metal, ditto	do	5 10 0-5 15 0			
Bars, common, ditto	do	7 5 0			
Ditto, railway, ditto	do	7 0 0-7 5 0			
Ditto, Swed. in Lon.	do	14 10 0-16 10 0			
In stock to arrive	do	15 0 0-16 0 0			
Pig, No. 1, in Clyde	do	3 8 6-3 9 6			
Ditto, in Tyne and Tees	do	3 11 0-3 15 0			
Ditto, forge	do	3 10 0			
Staffordshire Forge Pig	do	4 15 0-5 0 0			
Welsh Forge Pig	do	3 15 0-4 0 0			
LEAD.		per Ton.	YELLOW METAL SHEATHING.		p. lb.
English Pig	do	22 10 0-24 10 0	Wetterstedt's Pat. Met.	p. wt.	2 2 0
Ditto sheet	do	24 15 0	Stirling's Non-lamina-	do	9 0 0-9 2 0
Ditto lead	do	26 0 0-26 5 0	ting, or Hardened	do	9 0 0-9 2 0
Ditto white	do	27 0 0-28 10 0	Surface Rails, p. ton	do	4 0 0-5 0 0
Ditto patent shot	do	27 0 0	Stirling's Patent	Glasg.	— 5 5 0
Spanish, in bond	do	22 10 0-23 15 0	Toughened Pig	do	4 0 0-5 0 0
American	do	none.	Ditto	Wales	4 0 0-5 0 0
BRASS (SHEETS).		p. lb.	Indian Charcoal Pigs	do	— 7 10 0
Wire	do	11 1/4 d.-12 1/4 d.			
Tubes	do	11 1/4 d.-14 s.			

REMARKS.—Our market has evinced symptoms of a declining tendency. Copper, iron, spelter, and tin are mostly quoted somewhat lower; lead and tin plates are also easier, although the general quotations remain about the same as last inserted; the market altogether appears to have undergone a change, prices becoming easier under a limited amount of business.

**COPPER.**—We are unable to report any activity now in our market; the impetuosity exhibited amongst speculators to purchase at present prices is abated since the advance in fixed rates seems likely to take place. Those parties who were so anxious to buy previous to the last sale of ores at Swansea, are now offering copper for sale, and smelters come forward with ore, which they previously stated was in such strong demand that it was quite impossible to supply any further quantity for some considerable time, and declined to entertain orders unless at the prices at the time of delivery, clearly showing the falsity of their representations.

**IRON.**—Bills are procurable at 7½ p. ton, f.o.b. at the works; merchant bars, of common brands, being dull of sale, could also be purchased at 7½ p. ton, f.o.b. at the works; sales having already been effected for forward delivery in London at 8½ p. ton. Staffordshire exhibits a downward tendency; nail rods of best quality offering at 9½ p. f.o.b. here. Scotch pigs have been sold at 6½ p. d., m.n., but have again rallied, and sellers now quote 6½ p. d., g.m.b., f.o.b. in Glasgow.

**LEAD.**—English pig of good soft quality has been offered at 23½ p. 10s. Sheet lead, 24½ p. 10s. The market is quiet, but steady at these prices.

**SPELTER.**—The stock of spelter has much increased, the return here on the 1st inst. stated 1963 tons; the transactions in this metal for some time past have been very insignificant, and holders at the present moment would readily realize at 30½ p. ton.

**TIN.**—English remains without any alteration. Foreign has fluctuated; the closing price for Banca was 139½ p. for about 500 slabs, 140½ p. for a smaller parcel. Straits, 138½ p. nominal. There is evidently less disposition to operate on the part of speculators, although the deliveries in Holland last month were very large, at the same time it was prompt month, when it is usual for larger shipments to take place. Banca is reported to be had at the sale price in Amsterdam.

**TIN PLATES.**—Former prices are maintained.

**STEEL.**—No change of consequence.

**LIVERPOOL, OCT. 1.**—In the absence of any alteration in our market for metals, we have to refer to our report of last week. There appears to be no diminution in the demand for Welsh bars, and also for good qualities of Staffordshire Iron, and prices are well supported. The exports are favourable, and the requirements for local purposes are extensive, so that the position of the trade is satisfactory. Scotch Pig-iron is steady, the fluctuation in price being very small; transactions are but limited, the unsettled aspect of Indian affairs tending to deter operations in the article; a fair demand is experienced for export and for home consumption. The shipments are large this week, being 12,093 tons, against 9536 tons in the corresponding week of last year. There is no change in tin; for English, especially, the enquiry is good, leaving stocks bare. Tin-plates are just now easier; there is no pressure to sell, however, and it is not unlikely that the market will rally. For Copper, a good steady demand exists, and prices are very firm. In Lead, there is no change. The following are the quotations:—Iron: Merchant bar, 7½ p. ton, f.o.b. at the works. Tin: Common block, 140½ p. ton; common bar, 141½ p. ton; refined block, 144½ p. ton; Charcoal, 10 p. ton; 38s. 6d. per box; coke, 10 p. ton; 34s. 6d. per ton; English sheet, 25½ p. ton; English pig, 24½ p. ton; Copper: Cake and tile, 12½ p. ton; best selected, 12½ p. ton; sheeting and bolt, 1s. 1½ d. per lb.—Yellow metal sheeting, 1½ d. per lb.

**GLASGOW, OCT. 1.**—A fair business has been done in pig-iron warrants since our last report, at from 67s. 6d. to 68s. 3d. for cash, closing steadily at 67s. 9d. to 68s. The return of shipments on Tuesday was good, being 12,000 tons, but the demand for shipment iron is again slack. Some special brands, such as Gartsherrie, Coltness, and Calder, still command high prices. No. 1, Gartsherrie, 77s.; No. 1, Calder, 73s.; No. 1, Coltness, 72s.; No. 1, g.m.b., 69s.; No. 2, g.m.b., 64s.

**QUARTERLY REPORT.**—The iron trade continues in a sound and prosperous position. The average number of furnaces in blast during the quarter just closed were 128 (131 furnaces are now in blast), and produced about 217,000 tons of pig-iron. Though the production is a few thousand tons less when compared with the preceding three months, still it is slightly in excess of the exports and local consumption, which in the aggregate amounted to 208,000 tons. The stocks have thus only increased 9000 tons, and are now 112,000 tons, laying in makers and warehouse-keepers' stores (39,000 tons in warehouse-keepers' stores; 53,000 tons in makers' hands, the greater part of which is not g.m.b.).

The almost entire absence of speculative operations, partly owing to the military revolt in India, prices have tended downwards, having averaged in July 73s. 4d., in August 70s., and in Sept. 67s. 9d., for mixed numbers. It is worthy of observation, that whilst No. 1, g.m.b., has declined during the quarter nearly 7s. 6d., Gartsherrie has scarcely receded 3s. per ton, and is still in demand at 76s. to 77s., chiefly for the Continental and American markets.

Within the last few days there has been more enquiry for pig-iron, and the shipments are extending. The quotations are firm, at 72s. 6d. for No. 1, Calder and Coltness; 71s. for No. 1, Gartsherrie and Summerlee; 69s. for No. 1, g.m.b.; 68s. for mixed numbers; 67s. 6d. for Ayrshire brands; and 67s. 6d. to 68s. 6d. for East Coast brands. The bar makers and founders being generally fully employed, have, in consequence of the fall in pig-iron, been enabled to slightly reduce their prices, which are now as follows:—Bars, 8½ p. ton; plates, 10½ p. ton; 10½ p. ton; sheets, 10½ p. ton; 10½ p. ton; rails, 8½ p. ton; east-iron pipes, 5½ p. ton; railway chairs, 5s. to 10s.

**MINES.**—The market opened quietly this week, but improved after the settling, which was somewhat heavy. Money has been rather tight, and some of the heavy mining shares have slightly receded. Since our last was written, the standard for copper ores has receded a little, but is still at a good price. A large business has been doing in several of the small shares, such as Sortridge Consols, which advanced to 2½ p. 2½, leaving off at 2½ p. 2½; East Russell, 36s. to 37s. 6d.; Kelly Bray, which were flat at 32s. to 34s., suddenly rose to 36s., leaving off at 36s. to 1½ p. Alfred Consols during the greater part of the week had a downward tendency, and receded to 1½ p. 12½, but improved on Friday, and left off at 13 p. 12½; Great Alfred shares continue very flat, at 6 p. 6½; Herodsfoot, 7½ p. 8, ex div., and not much doing; Wheel Mary Ann, 47 to 48, ex div.; Trevelyan, 23½ p. 24½; a good improvement has taken place in the mine, causing a demand for the shares. Craddock Moor, 41 to 42, and rather flat, notwithstanding the dividend; Great South Tolgas have been in demand, at 17; North Basset, 15½ p. 16½; West Basset flat, at 25 to 26; South Frances, 230 to 240; Basset, 206 to 215; West Seton, 340 to 350;

West Par, 2 to 2½, and in demand; Holmbush, 1½ p. 2; Lady Bertha shares have been flat, and the price receded to 1½ p. 1½, though the mine is reported as looking well. Wheel Grenville, 1½ p. 1½; lower quotations, at which we understand no sellers have been found, have been daily given, and we refer to them merely to state that the mine is looking well in the 64 west, and in the shaft, and it would be well if shareholders enquired of the agents on the mine as to its real prospects before being induced to part with shares, through the same influences which have more than once been used to depress the market in order to buy shares cheap. East Basset, 75 to 80, and a fair business done; at the meeting, it was resolved to erect a new steam wharf; a call of 1½ p. per share was made; the report presented to the meeting stated that the engine-shaft was sunk 3½ fms. below the 80; the lode in the 60 east, on tin lode, worth 40½ p. fm.; the lode in the back and bottom, 60½ p. fm.; the 60 east, on the south lode, 2 tons of copper ore per fm. Grambler and St. Aubyn, 80; Redmoor, 2 to 2½; Clifton and Wentworth, 5 to 5½; Wheel Kitty (Lelant), 22 to 22½; Boiling Well, 1½ p. 1½; Catherine and Jane, 8s. to 10s.; Tamar Consols, 1 to 1½; Great Baddera, 2 to 2½, and more enquired after; Wheel Harriet, 2 to 2½, and a good improvement reported in the mine; Wheel Margaret, 65 to 67½, rather flat; Wheel Margery, 12 to 13, and better; North Busy, 2 to 3; Great Busy, 6 to 6½. Hingston Down, 5½ p. 6½, and have been in good request; at the meeting, the accounts showed a balance in hand of 786l. 16s. 10d., and estimated balance for next account of 1196l. 7s. 2d. South Carn Brea, 6 to 6½. Pedn-ar-dre, 19s. to 21s., and have been in good request; the mine yielded a profit of 2700l. last month, and will do better for the future. Wheel Edward have not been so firm, and leave off at 9½ p. 9½; Gawton, 21s. to 23s.; Pendean, 2½ p. 2½.

A correspondent, referring to the late depression in mining affairs, and the decrease in the dividends from many of the copper mines, calls our attention to the heavy tax levied on copper mining companies by the expenses of the weekly ticketing dinners, and hopes that by our noticing them some alteration may be made, so that mines may be relieved of at least a portion of the charge. We have now before us the items forming the expense on Sept. 17 last, when the dinner was attended by only two mining agents (those of Great Devon and Bedford), and by twenty-five agents of the copper companies; the party consisted, with the steward, of twenty-eight persons, and the expense was 35l. 2s. 9d., of which Devon Consols had to pay 17l. 4s. 10d., and the other mines in proportion. Now, being ourselves fond of good cheer, and of Cornish living, we are not going to object to a "feed" at "owners' account" occasionally, nor would the miners object to them once in a while; but as this dinner is a weekly affair, and costs the mines selling ore about 17000l. a year, it becomes a tax which, we agree with our correspondent, should be modified, or differently apportioned. What jolly fellows these agents must be, who, after settling the mysteries of the "standard" and "produce" to their own satisfaction, can comfortably dispose, between 28 of them, of 26 bottles of wine at 6s. a bottle; spirits, 3/10s. 6d.; and beer and porter, 1/6s. 1/6s. Let us hope, with all this, they drank hearty success to the *Mining Journal*; to the mines which paid the cost of their enjoyment; and never showed a desire for a fall—in the standard.

**Mining Exchange Official List of transactions during the week:—**

**SATURDAY, SEPT. 26.**—Alfred Consols, 13 to 13½; Calstock Consols, 6 to 6½; East Basset, 75 to 80; Great Hewart, 2 to 2½; Lady Bertha, 23s. 6d. to 24s. 6d.; North Frances, 12½ p. 13½; Pedn-ar-dre, 19s. to 21s.; Pendean, 2½ p. 2½; Sortridge Consols, 2 to 2½; West Caradon, 130 to 135; Wheel Edward, 9½ p. 10½; Wheel Grenville, 1½ p. 1½; Wheel Mary Ann, 47 to 48½; Wheel Wrey, 5 to 5½.

**SUNDAY.**—Alfred Consols, 13 to 14; Lady Bertha, 23s. 6d. to 24s. 6d.; North Frances, 12½ p. 13½; Sortridge Consols, 2 to 2½; St. Day United, 24s. to 25s.; Wheel Edward, 10 to 10½; Wheel Grenville, 2s. to 3s.

**TUESDAY.**—Alfred Consols, 13 to 13½; East Russell, 37s. to 37s. 6d.; Hingston Down, 5½ p. 5½; Lady Bertha, 23s. to 24s.; Pedn-ar-dre, 19s. to 21s.; Pendean, 2½ p. 2½; Sortridge Consols, 2 to 2½; South Condour, 2s. 6d. to 2s. 6d.; West Caradon, 110 to 121; Wheel Edward, 9½ p. 10½; Wheel Margaret, 65 to 69; Wheel Mary Ann, 47 to 48.

**WEDNESDAY.**—East Basset, 77½ p. 80; East Russell, 38s. to 38s.; Kelly Bray, 36s. to 36s.; Lady Bertha, 24s. to 24s.; North Frances, 13½ p. 13½; Pendean, 2½ p. 2½; Sortridge Consols, 21-16, 23-16; West Caradon, 117½ p. 120.

**THURSDAY.**—Alfred Consols, 13½ p. 13½; Catherine and Jane, 9s. to 10s.; East Russell, 36s. to 38s.; Great Baddera, 16s. 6d. to 17s. 6d.; Kelly Bray, 36s. to 38s.; Lady Bertha, 23s. to 24s.; Sortridge Consols, 2½ p. 2½; Tamar Consols, 24 to 25; Wheel Edward, 9½ p. 10½; Wheel Grenville, 2s. 6d. to 2s. 6d.; Wheel Harriet, 2 to 2½; Wheel Margaret, 65 to 67; Wheel Trevelyan, 23½ p. 24½.

**FRIDAY.**—East Basset, 75 to 80; Gawton United, 21s. to 23s.; Pendean, 2½ p. 2½; Redmoor, 2 to 2½; Sortridge Consols, 2-16 to 2-16; Wheel Edward, 9½ p. 10½; Wheel Grenville, 2s. 6d. to 2s. 6d.

**On the Stock Exchange, the following business has been transacted:—**  
**MONDAY.**—Alfred Consols, 13½ p. 13½; Great Wheel Vor, 3½ p. 3½; North Frances, 13 p. 13½; Vale of Towry, 2 p. 2½; St. John del Rey, 11; Cobbe Copper, 46.  
**TUESDAY.**—Alfred Consols, 13½ p. 13½; Great Wheel Vor, 3½ p. 3½; North Frances, 13 p. 13½; Par Consols, 20½ p. 20½; Portland United, 5½ p. 5½; Wheel Edward, 9½ p. 10½.  
**WEDNESDAY.**—Alfred Consols, 13½ p. 13½; Great Wheel Vor, 3½ p. 3½; Lady Bertha, 24s. 18; North Wheel Basset, 18 to 18½; Sortridge Consols, 2½ p. 2½; Wheel Edward, 9½ p. 10½; Wheel Kitty (Lelant), 22½ p. 22½; Cobbe Copper, 46½ p. 46½.  
**THURSDAY.**—Alfred Consols, 13½ p. 13½; North Frances, 13 p. 13½; Sortridge Consols, 2½ p. 2½; West Basset, 24½ p. 24½; Imperial Brazilian, 2 to 2½. Transactions, though not officially marked, Alfred Consols, 11½ p. 12½; Wheel Zion, 20s. 19s.; Wheel Trevelyan, 23½ p. 24½; North Frances, 13½ p. 13½, without this call.  
**FRIDAY.**—Alfred Consols, 12½ p. 13½; Great Wheel Vor, 3½ p. 3½; Par Consols, 20½ p. 20½; Sortridge Consols, 2-16 to 2-16; Wheel Edward, 9½ p. 10½; St. John del Rey, 11½; Mexican, 3½ p. 3½.

**At Pool Ticketing, on Thursday, 3935 tons of ore were sold, realising 25,033l. 14s. The particulars of the sale were:—Average standard, 1422l. 19s. average produce, 62; average price, 6l. 7s.; quantity of fine copper, 250 tons 17 cwt. The sale at Redruth, on Thursday, will be 4168 tons.**



still very good. It would be seen by the statement of accounts that they were obliged to reduce the balance, in order to make the usual dividend; but it gave him pleasure in being able to state that at the next meeting they would give a bonus, and also considerably increase the present balance.

At Herodotus Mine meeting, on Sept. 23 (Mr. J. Carter in the chair), the accounts showed—Balance last audit, 3394. 14s. 3d.; ore sold, 2608. 10s. 11d.; 2608. 10s. 11d.—mine cost, merchants' bills, and sundries, 2299. 6s. 3d.; leaving balance in favour of mine, 694. 10s. 11d. A dividend of 11s. (10s. per share) was declared. Capt. James Wolfenden reported that they had an accident to their machinery last week, but it was quickly repaired; there will, however, be a new balance-bob and a new piston required to make all complete and safe.

At the Collacombe Mine meeting, on Wednesday (Mr. Harcourt Hill in the chair), the accounts showed—Balance last audit, 1347. 2s. 1d.; copper ore sold and carriage, 1803. 9s. 1d.; 1803. 9s. 1d.—July dividend, 1000s.; mine cost and merchants' bills, July, 607. 8s. 2d.; August, 671. 1s. 6d.; sundries, 19. 13s. 7d.; leaving balance in favour of mine, 532. 2s. 11d. A dividend of 700s. (7s. per share) was declared. Captain Samuel Mitchell reported on the various points of operations at the mine.

At the Treasvane Mine meeting, on Wednesday, the accounts showed—Balance last audit, 429. 11s. 3d.; mine cost and merchants' bills July and August, 1421. 11s. 9d.—Ore, &c., sold (less lord's dues), 1196. 7s. 2d.; leaving balance against adventurers, 698. 17s. 10d. A call of 10s. per share was made.

At Hington Down Consols Mine meeting, on Wednesday, the accounts showed—Balance last audit, 1300. 15s. 3d.; ore sold and carriage, 2299. 15s. 9d.—1856. 11s.—Labour cost, June and July, 1633. 4s. 10d.; Duchy of Cornwall dues, paid loan, property tax, &c., 1104. 9s. 4d.; leaving balance in favour of mine, 166. 16s. 10d. The estimated balance of receipts over expenditure to the Dec. 31 next showed, 1195. 7s. 2d. Capt. C. Richards reported that since the last meeting the sinking of Dolgellau's mine below the 100 had been resumed, the lode in which was from 4 to 5 feet wide, with branches of ore running through it; the ground containing hard. A pit was being cut preparatory to the sinking of Morris's shaft. The lode in the 75 east had considerably improved, 9 feet wide, yielding from 4 to 5 tons of ore per fathom.

At the Brynford Hall Mine meeting, held at Holywell on Sept. 17, the accounts showed—Labour, merchants' bills, &c., for April, May, June, and July, 880. 4s. 2d.—Balance last audit, 329. 3s. 3d.; ore sold, April, May, June, and July, 288. 1s. 10d.; leaving balance to credit of mine, 317. 9s. 11d. The committee regret having to relinquish the services of the consulting engineer and captain, from economical motives alone, and desire to record their best thanks for their past efforts. The agent's report states that the different works are being prosecuted so as to secure the ultimate prosperity of the mine, and that their present position is quite as encouraging as ever.

At Boscawell Mines meeting, on Sept. 26, Mr. York (the pursuer) produced the accounts to the end of August, which showed an expenditure of 4135. 11s.; call made, 1266s.; and tin sold, 807. 17s.; leaving balance against the adventurers of 1961. 3s. 4d. A call of 11s. per share was made. The monthly returns of tin showed a steady increase. The steam-stamps of 24 heads is now in complete working order.

At Wheal Comfort meeting, on Wednesday, the accounts showed—Mine cost and merchants' bills for four months ending Aug. last, 800. 14s. 10d.—Ore sold, April and June, 254. 6s. 1d.; Treasvane water charge, 250s.; leaving balance against adventurers, 544. 8s. 6d.

At Cathodine and Jane Consols meeting, on Tuesday (Mr. W. J. Dunsford in the chair), the accounts showed—Calls received, 716. 5s.; loan and sundries, 111. 7s. 7d.; iron ore sold, 248. 7s. 2d.—1857. 9s. 9d.—Mine cost, merchants' bills, and sundries, 868. 19s. 1d.; balance last audit, 351. 12s. 1d.; leaving balance in favour of mine, 173. 12s. 7d. The committee's report stated that the present position and prospects of the mine were satisfactory. There are now on the floors about 11 tons of lead ready for market, which will be made up to 20 tons in the course of next month; there will also be an accumulation of iron ore. No steps have yet been taken to register the company under the Limited Liability Act of 1856, as the committee thought it most advisable that the second instalment at least on the new shares should be paid up before such application was made. Mr. Codd having tendered his resignation as secretary to the company, in consequence of his being about to leave London, it was resolved "that Mr. Codd's resignation be accepted, and that Mr. W. J. Dunsford be appointed the secretary of this company, and be requested to enter on his duties as soon as convenient to Mr. Codd." Also, "that the best thanks of the meeting are due, and are hereby tendered, to Mr. Codd for his zeal and integrity, and that a gratuity of 21s. be offered to him as an acknowledgment of the estimation the shareholders entertain of his services." Messrs. Baker, Brown, Johnson, Powell, and Wren were elected the committee until the next meeting. Captain John Treweek reported upon the operations at the mine.

At Herward United Mines meeting, held at Holywell on Sept. 17, the accounts showed—Balance last audit, 101. 11s. 11d.; calls, merchants' bills, &c., for April, May, June, and July, 947. 5s. 2d.—1857. 2s. 1d.—Ore sold, April, May, June, and July, 245. 7s. 10d.; received on account of call, 663s.; leaving balance against mine of 135. 14s. 3d. A call of 5s. per share was made. The forfeiture of shares, declared at the last meeting for non-payment of calls, was confirmed. From motives of economy alone, the services of the consulting engineer and captain are dispensed with, but the committee desire to thank them for their past efforts. The captain's report states that the Wagon shaft, 2½ years in sinking, is completed to the 50 fm. level, and as the ground in whole for half-a-mile, great hopes are entertained that it will very speedily become productive. The engine-shaft will be made good to the day level, 40 fms. deep, in a few days, and preparations will be made for sinking to work the ore ground left going down.

At Buller and Bassett United Mines meeting, on Monday, the accounts showed—Purchase of leases, calls, &c., made to June 29, 1438. 10s.; labour cost and merchants' bills from the commencement, 11,499. 11s.; leaving balance in favour of mine to end of Aug., 2878. 19s. Capt. G. Reynolds reported that the engine-shaft had been sunk from the 43 to the 50; a large pit had been cut, and the necessary work done for fixing engine work, &c., after which they would drive east and west on the lode in the 50, and sink the shaft with all speed below, where a productive lode would be met with the lode at the shaft at present being 3 feet wide, and from which he did not hesitate to say great improvements might reasonably be expected; as well also in driving east in the 50, towards the great cross-course, good shoots of ore would be met with, the lode being large and highly mineralised, promising every chance of very great success.

At East Wheal Bassett meeting, on Monday, the accounts showed—Balance last audit, 412. 3s. 4d.; mine cost and merchants' bills, four months ending August, 869. 5s. 11d.—1857. 1s. 3d.—Calls received, 768s.; tin and tin ore sold (deducting 296. 14s. 7d. due at 1-10th), 145. 19s.; leaving balance against the mine, 67. 10s. 3d. A call of 11s. per share was made. Since May last this property has been gradually improving in prospect, and we have not failed to time, to give attention to it. It will be seen that the statements which we have occasionally published have not been exaggerated, and the mine (looking at the proceeds of the last month's yield) more than pays costs. The discovery in the 60 east, on the south lode, is therefore of great moment, and dividends may be expected in the ensuing year. Capt. W. Nanorow reported upon the several points of operation in the mine.

At North Francis Mines meeting, on Thursday (Mr. T. W. L. Mackean in the chair), the accounts showed—Balance last audit, 319. 19s.; received for ore sold, 888. 8s.; registration fees, 24. 7s. 6d.—1857. 14s. 6d.—Mine cost, merchants' bills, and sundries, 461. 11s. 11d.; leaving balance in favour of mine, 461. 2s. 7d. A call of 10s. per share was made. Captain Thomas Garland reported that on Sept. 25 they cut into a lode of yellow ore, about 1 foot high, worth 15s. per fm., 2 feet north of the main lode in the 66, east of Eater's shaft 4 fms.; should this lode continue to run separate from the other it may be a valuable discovery. Although they have had some reverses by the lode being disordered in the shaft, about the 78, they are optimistic from the appearances at that point that they will soon be able to give a better account of the lode both in that level and below it.

At the West Alfred Consols Mine meeting, on Wednesday, the accounts showed—Balance end of May, 461. 17s. 10d.; labour cost—June, 419. 14s. 11d.; July, 441. 16s. 6d.; merchants' bills, 463. 4s. 6d.—By calls made July 29, 450s.; copper ore sold, 644. 7s. 5d.; old cast-iron sold, 584. 4s.; interest and commission paid by adventurers in arrears, 14. 12s. 11d.; discount on a merchant's bill for Feb. 16s.; leaving balance against mine, 624. 6s. 4d. The merchants' bills include the cost of a boiler, just purchased for 135s., considered an advantageous price for the adventurers. A call of 12s. 2d. per share was made; and the sum of ten guineas, with the thanks of the adventurers, were presented to Mr. J. M. Jaqueton (one of the committee) for the expense of his visit to the mine. The committee were re-appointed for the ensuing two months.

At Carrack Down United Mines meeting, Sept. 23 (Mr. B. Clapham in the chair), the accounts showed—Balance last audit, 480. 14s.; calls received, 1185. 7s.; ore sold, 1379. 13s. 11d.; discount, 47. 4s. 5d.—3049. 1s. 5d.—Mine cost and merchants' bills, Feb., 538. 4s.; March, 344. 7s.; April, 361. 9s. 4d.; May, 371. 11s. 10d.; June, 402. 13s. 7d.; July, 395. 18s.; lord's dues, 71. 3s. 7d.; leaving balance in favour of adventurers, 723. 14s. 1d. A call of 2s. 6d. per share was made. The half-yearly accounts have shown the produce of sales to be—821. 371. 578. 877. 1, and 1879. respectively. Messrs. Clapham, Woolmer, Holland, Hall, and Chatteris were elected the committee of management. Capt. Wm. Hollow, Jun., and Martin Dunn reported that they had sunk a shaft, and driven, during the half-year, 535 fms. 3 ft., but could not yet promise to pay costs, as to do so they must lay open more ore ground. The appearance at that point that they will soon be able to give a better account of the lode both in that level and below it.

At the Dale Mining Company meeting, on Wednesday, the proceedings were merely *pro forma*, in accordance with the articles of association. Some fine specimens of lead ore were produced, and the mine, which adjoins the celebrated Eton Mine, is 32 fms. below the adit, 25 fms. from surface, making a depth of 60 fms. The report states that in the next there are several large veins or lodes, which in depth will form numerous intersections with the pipe, and with one another. At the depth named, a level has been driven on the vein, which has yielded a considerable quantity of lead ore, giving an average of 75 per cent. of metallic lead. The company have already sold 154 tons of lead ore, realising 1623. 4s. 9d., and have appliances for dressing 50 tons per month, at the lowest possible cost. The proceedings were adjourned to October 14.

At Wheal Emma meeting, on Sept. 16, the accounts showed—Balance due to pursuer on last account, 994. 18s. 4d.; sundry accounts paid out of liabilities existing, June 3, 302. 17s. 3d.; ore sheets, May, 415. 14s. 9d.; June, 273. 2s. 1d.; July, 229. 6s.; accounts paid since June 3, 189. 4s. 5d.; by ore ore sold, 1221. 3s. 8d.; Brook Wood Mine, for materials, 401. 17s. 9d.; balance due to pursuer, 212. 15s. The statement of assets and liabilities showed balance in favour of adventurers, 187. 15s. 9d.

At Great Wheal Badden meeting, on Tuesday (Mr. Thos. Key in the chair), the accounts showed—Balance last audit, 119. 5s. 2d.; ore sold, 534. 14s. 8d.—1857. 2s. 10d.—Mine cost, merchants' bills, and sundries, 873. 7s.; leaving balance in favour of mine, 81. 15s. 10d. Capt. John Jenkin reported that they had been obstructed by bad air very much, but by a new air-machine, and other arrangements, they have overcome the difficulty, and the men were now able to work their full time in comfort. The water through the mine had considerably abated. The future prospects of the mine are cheering.

At Sittney Wheal Buller adjourned meeting, on Thursday (Mr. R. T. Allison in the chair), the accounts showed, balance against adventurers, 624. 6s. 3d. A call of 5s. per share was made.

Kelly Bray Mine sampled last Friday 108 tons of copper ore for Sept. month, which will realise upwards of 6000s., and a profit for the same month of above 1500s. per month. The 25 fm. level was gone through a course of ore 14 fathoms, and the present end is worth 25s. per fathom. The 45 is expected daily to produce a course of ore. The 90 west and 100 east look better.

The Duke of Cornwall Mine has now at surface about 200 tons of ore, dressed and undressed, and from 60 to 80 tons of Jack, which will be immediately prepared for market.

Sortridge Consols is improving in the 62 east. The change in the character of the lode in this level is worthy of notice, as it partakes very much of the qualities of the same lode in the 30, which proved so very productive.

At the Linares Lead Mining Company meeting, on Tuesday (Mr. Wm. Waine in the chair), the accounts for six months ending June showed—Proceeds of 3255 tons 14 cwt. of ore smelted, producing 2086 tons 18 cwt. of lead, 49,949. 3s. 9d.; surplus proceeds of 407 tons 17 cwt. of slag lead, produced and sold beyond the estimated value credited in previous accounts, 3611. 7s. 1d.; value of the lead in slag, 2699. 11s. 5s. 10d. 10d.—Mine cost, smelting cost, merchants' bills, and sundries, in Spain, 39,069. 10s. 11d.; salaries, inspection of mines, and payments in England, 599. 18s. 5d.; value of prospects and undressed ore taken from stock in hand Dec. 31 last, 4289s.; leaving balance being profit, 12,592. 15s. 6d. The balance in favour of the company on profit and loss carried to the next account was 12,240. 13s. 2d. The directors reported that they had the pleasure of presenting the shareholders with the most favourable report which they had ever been enabled to make. A dividend of 5s. per share was paid in July, and another of 6s. 3d. would be paid in Oct., both being out of profits made during the half-year ending June. A detailed report will be found in another column.

At the Liberty Mining Company meeting, on Tuesday (Mr. Riddell in the chair), resolutions were passed for raising additional capital by the issue of preference shares, at 50 per cent. discount, and to bear 10 per cent. interest; and the original shares, if not sent in within 21 days for exchange, be deemed forfeited. Votes of thanks to the Chairman, directors, and Mr. Conquest, terminated the proceedings.

The Alton Mining Association have their report from Aug. 25 to Sept. 8: RAIPAS.—The ground newly opened on over the shallow adit continues to promise very profitable results. The mine further north is also producing good saving work, though it has not yet reached the deposit we first found in the back of the adit: when we get this part of the stope opened up, we expect being able to increase the returns. The stope above the 10 is on the same pipe of ore as has now been worked down to and communicated with the 30; but in neither of these places is there any improvement. The stope under the 20 produced considerable quantities of a poor copper slate, and is easily worked. The stope under the 30 is still full of water.

OLD MINE.—The lode in No. 1 working continues to yield equally favourable returns, and looks well. The level to go north from this place is commenced, but, of course, it will take some weeks to get much in advance of the stope. It now seems very probable that the right lode is intersected in mine No. 2, which is 1½ ft. wide, containing stones of ore; it is also striking off very flat from the slide to the west—precisely the same as was before seen; it is, however, necessary to further lay it open before we can judge correctly in this matter. In the mine under the shallow level the lode has been latterly rather disordered by some cross heads, but is again more regular, and, although poor for ore, it is large, and composed of a very conglutinated matrix. We continue to work most of the available ground in the old workings on tribute, where the prospects are much the same as for some time past.

UNITED MINES.—We have some tributaries in both the back and bottom of the 40; in the latter place the prospects are encouraging, the lode being 2 ft. wide, yielding good work. The back is rather poor at present, the lode being promising, and in the gooson, where the ore is generally found in bunches, we have promised the men assistance if not successful.

MICHELL'S.—The tribute operation is chiefly confined to the surface on the backs of the lodes, where they continue to break some good quality ore. There is no change to notice in the work bargains.

THOMAS'S.—During the last week the lode in the north pitch has improved, being 1 ft. wide, worth from 2 to 2½ tons of ore per fm., for the length laid opened. MICHELL'S.—The back of the lode on the east side of the valley has been traced for some 15 or 20 fms. in length. We have also sunk about 6 ft., where it is from 2 ft. to 3 feet wide, composed chiefly of greenstone, with yellow ore disseminated in small quantities throughout the mass; it causes a good footwall, which goes down almost vertically. Some returns are still being made from the old lode, which is found in small branches near the surface.—C. TREWEEK. Estimated produce for August:—

Mines.	Tons.	Per cent.	Copper.
Raipas	48	6	2-85
Old Mine	100	5	5-00
United Mines	8	5	0-40
MicHELL'S	9	6	0-54
Thomson's	10	14	0-70
Melvig	10	5	0-30
Total	180		10-05

The Copiapo Mining Company report for the half-month ending Aug. 15:

CHICO MINE.—In the 30, driving west of Harman's shaft, the lode is from 20 in. to 2 ft. wide, and contains stones of yellow ore throughout. In the 60, driving west of Harman's shaft, the lode is 3 feet wide, producing ½ ton of low quality ore per fm. In the 30, driving east on middle lode, the lode is from 2 ft. to 3 ft. wide, producing stones of ore. In the 40, driving west on south branch, the branch is 20 inches wide, and still continues to yield 2 tons of 18 per cent. ore per fm. In the mine sinking below the 40 the lode is 4 ft. wide, producing about 1 ton of 10 per cent. ore per fm. The cross-cut driving north in the 40 is progressing favourably. In the stope in the back of the 40, on south branch, the lode or branch is 2 ft. wide, producing 2 tons of 16 or 17 per cent. ore per fm. In the 30, driving east on north lode, the lode is a little improved, and will now yield 3 tons of 14 per cent. ore per fm. In the stope in the bottom of the 30, on north lode, the lode is 3 ft. wide, and will yield 4 tons of 16 or 18 per cent. ore per fm. In the cross-cut, driving north in the 30, the ground is favourable for driving. In the 30, driving east of Harman's shaft, the lode is 1 ft. wide—poor. In the 20, driving east on north lode, the lode is 3 ft. wide, producing stones of ore occasionally. The lode having taken a split in the mine below the 20, we continued our sinking on the south part of the lode, this being the richest part for ore at the company's mine. Since then the back part of the lode has been still standing to the north, consequently, we have begun to cross-cut north, to intersect that part, and I have no doubt it will be found very good when intersected. In the stope in the old part, on Green lode, the lode still continues to yield from 4 to 5 tons of 18 per cent. ore per fm. The tribute pitches are looking very well.—W. TANKER.

DOLGELLAU MINE.—In the south chifon the lode is 3 ft. wide, looking very well, and yields about 2½ tons of 20 per cent. ore per fm. In the north chifon the lode is 4 ft. wide, also looking very well, and will give about 3 tons of 22 per cent. ore per fm. In the end driving north in the bottom of the mine the lode is 3 ft. wide, yielding fall 2 tons of 22 per cent. ore per fm. We have also discovered the main part of the lode into the footwall, which will yield fall 5 tons of 24 per cent. ore per fm.—S. URM.

The United Mexican Mining Association have advices from Guanajuato to August 13 and 25: At San Mateo, the extraction of ore had been 1900 cargas (of 3500 lbs.) for 14 days, but the same quantity was required in the shaft had been prevented all the ore (knocked down) being raised to the surface. The interruption occasioned by the repairs had continued; the yield, however, during the four weeks ending the 23d of the month having been 3900 cargas, of which 2500 had been sold for \$9229, the remainder being remitted to the haciendas. In the pozo (or sink) upon the vein of San Mateo the frente (or extremity of the level) had been carried to the north with good results, showing a width in ore of 4 varas or Spanish yards (of 33 in.), with an altitude of 5 varas. A communication had been commenced by an inclined pozo from that of San Mateo, to extend to the frente of San Pedro, to connect thus the two mines, since the sinking down in the latter, which process was to be more robust as it proceeds. The works in the southern division of the mine continued to give ore in abundance, of which the fullest benefit could not be taken, owing to the necessary repairs alluded to in the shaft, the further deepening of the shaft being prevented also thereby. The mine of La Trinidad presented no new feature, and in the mine of Aldana the drainage had been stopped. The haciendas of Dolores and Duran were employed in the reduction of ore from Jesus Maria. The second rassa (or collection of deposits from the arrastres or mills) in the haciendas of Dolores had been placed, the result being 145 mds. of metallic lead, the mass of 1 cwt. with 1300 grains of gold per cwt. The value by the carta cuba, or certificate of coinage from the Mint, being \$6728. Quicksilver was quoted at 95s. cash, per quintal of 100 lbs., the quantity in use and in store being 15,770 lbs. 14 ozs.

From the Wildberg Mines, Capt. J. Walls (Sept. 25) reports.—The engine-shaft is still in hand ground, but the cross-cut driving north is getting into kilaas, and is consequently easier for driving. The sink going down in the Er Kanner is worth 10 tons of silver-lead ore per fathom; but the ground continues hard and wet. At the point where the end driving east from the No. 1 sink (Umbruck's level) is communicated to the old men's workings, we find they had not been so deep as the bottom of the said drainage by 7 ft. The lode here is worth 5 tons of silver-lead ore per fm. The stope west from the bottom of No. 4 sink is worth 6 tons of silver-lead ore per fm.; and the stope in back of the middle level are worth 5½ tons per fm. Our tribute pitches, on Beck's north lode, are looking well, and the main ore of silver. The mine throughout is looking quite as good as when I reported in the beginning of the month; but I fear, in consequence of the malady reigning in this place, that we shall be short of 150 tons of ore. During the last few days there have been nine deaths among the people employed in these mines; and out of 130 underground miners, more than 50 are absent from sickness.

The Imperial Brazilian Mining Association have received the sum of 10000s. as a deposit from the purchasers of their estates and property in the Brasil. The remainder of the purchase-money—31,0000s.—is to be paid in Rio, and remitted thence in first-class bills on London. The estates sold extend over 30 square miles of country, and include several villages and extensive wood lands, the mine of Gongo, and an extensive mining plant. The shareholders having authorised the winding-up of the company, it is confidently anticipated the assets will enable the directors to return fully 3s. per share to the shareholders in about six months from this date.

Mr. G. E. Cottrell, the chairman of the late Anglo-Californian Gold Mining Company, has issued a circular to the proprietors, offering on his own part, and that of his brother directors, to guarantee the shareholders from all further liabilities, on condition of their paying the sum of 3s. per share. This sum, he states, will enable them to pay all claims which can be legally enforced against the shareholders, and probably will have a surplus in the hands of the directors for further distribution. He further states that a large number are willing to pay this amount, if assured that this will be their final transaction with the company. He further dilates upon the necessity of the shareholders coming to some arrangement, in order to avoid the litigation which otherwise must unavoidably ensue.

At the Alliance Bank meeting, on Sept. 24, the accounts showed a total amount of business for the first half-year of 1857 of 4,111,794. 2s. 1d., and the net profit, 16,815. 2s., which, after deducting 6815. 2s. for the surplus fund, and bad and doubtful debts, would leave a profit equivalent to 10 per cent. per annum on the capital of the bank. As companies legally constituted in France can only declare dividends annually, a payment in the shape of interest at the rate of 5 per cent. was declared. The report stated that the business done during the first six months of 1857 was more than double that of the previous period, and that the number of customers and correspondents had increased in like proportion.

At the United Mutual Mining and General Life Assurance Society meeting, on Thursday (the Hon. W. E. Fitzmaurice in the chair), it was resolved to adjourn until Oct. 21, in consequence of the necessary arrangements between the People's Provident Society and the United not having been yet signed. The Chairman said that he might state that the general assets of the company would amount to little short of 60000s., and the general liabilities to 65477s., including all the bad debts; so that there would be ample to pay all the *bona fide* debts of the company. A shareholder asked if any arrangement had been made with Mr. Pritchard, or whether he held any security above that possessed by the other persons who had claims upon the company? The Chairman said that he did not, and that no arrangement had been made, neither could it be made with him, as such a course would be an act of injustice towards other parties. The meeting then adjourned.

The reports of the Linares, Fortuna, St. John del Rey, and Pontigouad Mining Companies, will be found in page 995.

REDUCTION OF COPPER ORES.—It is to be regretted that the experiments conducted by Mr. Reid, at the Arundell Copper Mine were not on a larger scale, so that more definite results could have been arrived at,—the trials, as far as they went, were informative and satisfactory. A reverberatory furnace has been constructed, and is now in perfect working order, it being Mr. Reid's intention shortly to make some further experiments. If a sum of about 5000s. were employed, and an adequate supply of ores obtained, this would be more than ample to test the practical utility of the invention, which has been patented in France, Austria, Belgium, and other countries, though hitherto time has not allowed any attempts to be made in either of those countries to test the capabilities of the process. There are abundance of copper ores in Cornwall, which are already at grass, but on account of their low percentage they will not pay the dressing charges, much less the heavy cost of carriage to a port of shipment. For these the invention of Messrs. Reid and O'Neill, when practically acknowledged, will be found to be of great utility, as much that is now thrown away will then be made available. At present, from the limited scale on which the trials have been made, it is impossible to give any definite opinion as to the merits of the invention, and the further experiments, which will be conducted by Mr. Reid, are looked forward to with great interest. So soon as the results come to hand we shall lay them before our readers, so that practical men can have an opportunity of judging whether the reduction of the ores can be carried out with that economy and success the patentees ascribe to their process.

The directors of the Indurated Stone Company have convened a meeting for Oct. 19, to consider the propriety of winding-up the concern.

REVIEW OF BRITISH MINING.—In a SUPPLEMENTAL SHEET to next week's Journal, we shall give a Review of the past Quarter, and some particulars of the Position and Prospects of the principal Dividend and Progressive Mines, by J. H. MURCHISON, Esq., F.G.S.

We shall also publish the Returns of the Produce of the Lead and Tin Mines.

To give these matters correctly, we court information from all parties interested. We may hereafter refer to the fact, that the annoyance at omission, and anxiety for correction, too frequently expressed, may be avoided by communicating necessary particulars.

LEAD ORES.			
Mines.	Tons.	Price per ton.	Purchasers.
East Wheal Falmouth	30	£29 2 0	J. Bibby, Sons, & Co.
Sold on the 26th September.			
Wheal Mary Ann	80	27 15 0	J. Bibby, Sons, & Co.
ditto	90	27 15 0	J. Bibby, Sons, & Co.
North Lacey	10	16 15 0	J. F. Epton.
Sold on the 29th September.			

BLACK TIN.			
Mines.	Tons.	Price per ton.	Purchasers.
Podan-an-dra Unit	4 2 13	£30 0 0	£354 9 6—Bolton.
ditto	4 14 17	75 0 0	354 0 0—ditto
ditto	1 8 2 8	53 0 0	75 14 0—ditto
Sold on the 26th September.			
St. Austell Consols	10 10 2	78 0 0	£320 19 0—Enthoven.
ditto	0 4 2 14	64 0 0	14 16 0—ditto
Great Wh. Fortune	0 4 0 25	—	796 9 4—Mellencar.

COPPER ORES.					
Sampled September 16, and sold at Randall's Hotel, Pool, October 1.					
Mines.	Tons.	Price.	Mines.	Tons.	Price.

Mines.	Tons.	Price.	Mines.	Tons.	Price.
West Wheal Seton	76	£7 16 6	Tinoroff	45	£8 13 0
ditto	70	7 9 0	ditto	30	3 6 0
ditto	68	6 14 6	ditto	20	2 7 6
ditto	67	7 16 6	ditto	27	7 16 0
ditto	62	3 6 6	ditto	6	25 4 6
ditto	46	8 9 6	Fowey Consols	105	7 13 6
ditto	40	3 6 0	ditto	83	7 10 6
ditto	37	14 13 0	ditto	78	5 16 6
ditto	36	12 3 6	ditto	70	8 4 6
South Frances	79	4 7 6	Duke of Cornwall	94	3 8 0
ditto	56	10 13 0	ditto	26	3 4 6
ditto	53	5 16 6	ditto	26	3 14 0
ditto	52	8 6 6	Wheal Seton	29	7 11 0
ditto	50	7 0 6	ditto	24	2 1 6
ditto	48	7 4 6	Pendarves	47	6 9 0
ditto	47	9 10 0	ditto	43	6 17 0
ditto	19	23 16 0	ditto	33	1 9 0
Wheal Bassett	75	11 9 6	ditto	12	18 7 0
ditto	64	7 9 0	Condurow	25	8 16 0
ditto	58	7 6 0	ditto	20	8 16 0
ditto	40	5 14 6	ditto	20	4 12 6
ditto	41	8 15 6	ditto	35	5 11 0
ditto	39	4 7 6	North Pool	72	5 11 0
ditto	31	2 2 0	ditto	30	2 2 0
ditto	30	5 19 0	ditto	24	13 1 0
East Pool	75	0 5 6	ditto	20	20 1 6
ditto	58	9 3 6	South Crofty	47	2 6 0
ditto	57	6 19 0	ditto	29	2 14 0
ditto	40	3 3 0	ditto	29	7 16 0
ditto	49	3 3 0	ditto	27	7 16 0
ditto	47	4 13 0	Dolcoath	44	3 6 6
ditto	36	6 9 0	ditto	41	5 4 6
Wheal Clifford	79	8 3 6	Cambrone Veau	64	6 9 0
ditto	74	5 17 6	North Roskear	50	11 15 0
ditto	60	5 7 0	West Crinnis	50	5 12 6
ditto	59	6 0 0	Stray Park	15	1 0 0
ditto	38	6 16 6	ditto	8	4 19 0
ditto	36	16 16 0	Goldendorthy's Ore	21	0 3 0
ditto	19	3 11 0	West Park Consols	9	0 0 0
ditto	19	3 11 0	ditto	9	14 14 0
Tinoroff	55	7 3 0	Wheal Truensis	17	3 1 0
ditto	51	6 2 6	Wheal Uny	14	6 16 0
ditto	49	4 5 0	Eny's Ore	9	7 16 0
ditto	47	2 11 6	West Frances	6	12 12 0



# THE PROGRESS OF MINING IN 1856.

BEING THE THIRTIETH ANNUAL REVIEW.  
By J. Y. WATSON, F.G.S., Author of the *Compendium of British Mining* (published in 1841), *Glencragg among Mines and Miners*, &c.

THE THIRTIETH ANNUAL REVIEW OF MINING ECONOMICS appeared in a SUPPLEMENTAL SHEET to the *Mining Journal* of Jan. 3, 1857.

A FEW COPIES OF THE REVIEW OF 1855, containing Statistics of the Metal Trade, the Dividends and Per centage Paid by British and Foreign Mining Companies, and the State and Prospects of upwards of 200 Mines. Also, A FEW COPIES OF THE REVIEW OF 1853, 1854, and 1855, MAY BE HAD on application at Messrs. WATSON and CUELL'S Mining Office, 1, St. Michael's-alley, Cornhill, London.

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N.B. Looking at the causes for the present depression in mining shares, Messrs. WATSON and CUELL have made a selection of a few dividend and progressive mines to pay good interest, with a probability, also, of a rise in value, the names and particulars of which will be furnished on application.

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MR. MURCHISON'S REVIEW OF BRITISH MINING for the QUARTER ENDING 30th June, 1857, with Particulars of the Position and Prospects of the principal Dividend and Progressive Mines, Tables of the Dividends paid in the past Quarter, and in the Years 1855 and 1856, and a MAP of the GREAT WHEAL VOR and LELANT MINING DISTRICTS, &c., is now READY, price 1s.; at Mr. MURCHISON'S office, 117, Bishopsgate-street Within, London.

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By J. H. MURCHISON, Esq., F.G.S., F.S.S. Pp. 356, boards, price 5s. 6d., by post 4s. See advertisement in another column.

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MR. TREWEEKE begs to inform his friends and the public generally that his MAP of the above DISTRICT, and a STATISTICAL ACCOUNT thereof for the past 30 years, is NOW READY, and will immediately be sent to any party who may require a copy, on the receipt of 14 postage stamps.  
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## Notices to Correspondents.

\* Much inconvenience having arisen, in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be regularly filed on receipt: it then forms an accumulating useful work of reference.

\* **AUDIT DEFINED AND EXPLAINED.**—Will you allow me to occupy a few lines in your next Journal, to refer to your criticisms of this pamphlet on Sept. 12, and to a letter upon the same subject which you inserted on the 19th, and observe that, if I omitted to speak of the *modus operandi* of Audit, the remuneration of auditors, and other practical and very necessary details as to time, trouble, and expense of working, it was because a simple "definition and explanation" of Audit did not permit the means by which its obligations beyond dispute, the consideration of business always feels when he knows what he has to do, and soon discovering the way. I should have earlier requested your indulgence for introducing this explanation, but have been absent from town.—THE AUTHOR.

**EAST HENDON MINES.**—The offices of the company are at Mr. Blew's, Bartholomew-street, Birmingham; the meeting held last week at Royal Exchange-buildings was merely a preliminary one, held in London for the convenience of shareholders.

**UNIVERSITY DEGREES.**—In my letter last week, a portion of Dickens's remarks on the Ph.D. was omitted; please give them, and oblige.—B.  
"Ben Jonson went in his day,"  
"Hood as an ass in reverend purple,"  
"And he will pass for a cathedral doctor;"

and now, in our day, society is often hoodwinked by the agency of the much-revered yellow of twenty sovereigns (more or less) into believing in the erudition of any person who chooses to disburse that sum to some German university for the privilege of being addressed as "Doctor." Of all titles, none ought to be more respected; consequently, when improperly borne, the false pretence demands exposure. As now, bartered for hire, the prefix "Doctor" is a distinction extrinsically without a difference; for, titularly, Dr. Jenner, Dr. Abernethy, Dr. Hooker, or any other great man, stands in the same rank with Dr. Taws, who keeps a school and cannot spell; or Dr. Family Black, who has found it profitable to add a drug department to his grocer's shop; and who, like Dr. Taws, has paid his money to buy the privilege of adding "Dr." to the brass of his door-plate.

**UNIVERSITY DEGREES.**—I have read the correspondence on the degree question, and felt interested, from knowing English graduates who have proceeded to degrees abroad, besides Englishmen who have been educated altogether in German universities. I am able to say the evil is not so general as implied in "B's" first remarks, and, indeed, "Germanicus" proved the existence of statutes against it. I believe there are more men in England than "B." is aware of whose ability rescues the diploma from the charge of velleity of the ignorant. What Dickens says refers to Glessen, Erlangen, Jena, and such like; if he assails the superior colleges, he is romancing. The correspondence appears to arise from a loose generalisation, and reminds me of the fable of the Gold and Silver Shield; all are in the right, and all in the wrong. If the parties will be content to regard diploma emanating from Glessen, &c., as suspicious without extending the reproach beyond proof, all may be satisfied. "Master of Arts" said sufficient to set the matter at rest; and both "Dunelm" and "Oxon" very lucidly explained how the evil would work its own cure. For my part, I should like to enlist the pertinacity of your correspondents against the existing monopoly of degree-granting at home. Since the days of Gutenberg, learning has been free as air, and cannot be monopolised by any syndicate. I agree with "Germanicus," the man who has attained a proper amount of learning should have the opportunity of presenting himself for a degree, and not be driven to write Latin theses for Glessen. A UNIVERSITY MAN, AND A LIBERAL. Fulmouth, Sept. 28.

**UNIVERSITY DEGREES.**—The various classes of philosophical degrees granted by the Universities of Glessen, Erlangen, and Jena, &c., no doubt, correctly stated by your correspondent "B."; but it does not, in the slightest degree, prove that a retail druggist, or any other person, who has fairly earned the degree, is not entitled to affix the Ph.D. to his name. The bad effect of any degree being obtainable by incompetent parties cannot be doubted, and the annoyance which is experienced by those who hold degrees from the same faculties is, probably, very great; but there can be no more justification for men who have been fortunate enough to gain Ph.D. from some remote faculty to condemn, and deny the right to the title to, those who have failed to obtain the degree with equal honours, than for a *senior optime* of Cambridge, or a Chancellor's prizeman at Oxford, to assert that no one is entitled to the degree of M.A. unless he be also a *senior optime*, or Chancellor's prizeman. Were all degrees designated by the same initials of equal value in the eyes of the students themselves,—that is, if there were no more honour in being *senior optime* than in being "allowed the examination,"—the amount of practical rivalry in a college would be considerably reduced. Where residence is unnecessary,—as, I trust, it shortly will be at London,—the consideration that the prize cannot be obtained by all is the inducement to study, which influences those who are striving there to obtain their academic distinctions. I again assert that all who have obtained a degree are entitled to the affix which it carries; and the security to those who have fairly earned it is to add the name of the university granting it, when it is a degree likely to be possessed by those not entitled thereto.—MARTIN OF AINT.

**VENTILATION OF COAL MINES.**—I observe that Mr. Austin replied in your last Journal to mine of Sept. 8, and he appears to think that I am unacquainted with his invention, my sole object being, at least, to annoy him. This is precisely the reverse of fact, since no one more than myself desired to see the ventilation of mines improved, and the hard-working inventor (and I should certainly consider Mr. Austin of this class) better rewarded for his labour. I am thoroughly conversant with the mode of applying the blocks, he having personally explained it to me, but I do not believe returning the air to the downcast shaft would meet with general satisfaction, as the arrangements at the bottom, to ensure anything like success, must be complicated. I do not doubt for a moment the utility of any one of his inventions, and am convinced that he would be highly remunerated if carried out by men of capital, but I cannot forget that there is a "place for everything," and that men of business lose patience when a discussion on jointed blocks is seasoned with the praise of blue bricks, indurated stone, Thames embankment schemes, and of an invention for treating manure.—J. W.: City, Oct. 1.

**VENTILATING MINES BY WATER.**—On reading, in your last Journal, a remark of your Cornwall correspondent respecting a patent invention (by Capt. Manley) for ventilating mines, I recollect having read in old Freiberg Mining Records of a similar mode of ventilating mines (by means of tubes or pipes, into which alternately water and air is injected from the surface, both being discharged at the respective ends in the mine) having been actually in use; for example, in ventilating a deep edit (the Freudenstollen, in the Pöschberg) near Annaberg, in Saxony, as far back as the 17th century. But I understood, and do so still, that the peculiarity of the invention is that it dispenses with the use of moving machinery, such as rotating drum, &c., altogether—the mere flowing of the water being caused, by a peculiar arrangement, to answer the purpose; and this circumstance would, I think, suffice to entitle the invention to the claim of being original.—G. J. G.: Sept. 28.

**VENTILATING MINES BY WATER.**—I was not a little surprised to see in your Journal of Sept. 19 that Capt. Manley had brought an action in the County Court against the parson of South Kiln Mine, for using "his patent invention" for ventilating mines by water through pipes, &c. I saw plans ventilated (and worked in them) in Cornish mines by water falling through pipes before Capt. John Manley could possibly have known the principle, or, perhaps, the meaning of the word ventilation; and certainly he must be very ill-informed on such matters even to make a pretence of his being the author of ventilation by means of water through pipes, tubes, &c.—A CORNISH MINER: Sept. 28.

**AIR-ENGINEERS.**—Will your correspondent, Mr. Morehead, give some further particulars as to the method by which he proves that "in theory air is superior to steam," as he might thus be the means of enabling ingenious persons, who have not had the advantage of regular engineering training, to try what they can do towards perfecting in practice that which is really good in theory.—H. J.: Oct. 2.

**"A Subscriber" (Birmingham).**—The offices of the English and Australian Copper Mining Company are at 17, Gracechurch-street. They have been established for some period. On application to the offices, we are informed that the secretary will afford any information to shareholders, or others interested.

**MANUFACTURE OF IRON.**—I have read several extracts from Mr. Rogers's forthcoming "Treatise on Iron Metallurgy," an excellent, therefore, that the author has really commenced writing; so that considering the work was announced for Dec. 1856, and the first extracts appeared in Sept. 1857, we may expect to receive our copies, as subscribers, in the course of a few years, I suppose, by which time the work will probably be superseded by some other treatise from a more expeditious workman.—H. C.: Oct. 2.—(The work is both printed and ready for delivery, but to secure the copyright for the United States its publication is unavoidably postponed until Nov. 1, upon which day all subscribers will receive the copies they require.)

**LIFT FOR ENGINE-PIST.**—Being about to put into an engine-pit an 18-in. lift, I beg to ask, through the Journal, some of its contributors to be so good as to inform me, from their experience, the best form of lift-pieces, working-barrel, and ram, and whether one lift or two, for a pit 180 yards deep, would answer best.—H. C. G.

**SPLITTING ROCKS WITHOUT BLASTING.**—This practice is very common in the mines in Scandinavia. At the large silver works of Kongberg on Sunday afternoon, when the men leave the labour, they place against the face of the rock, between wood and faggots, which are then fired. On Monday, when the workmen return, the rocks are heaved, and by slight blows of the hammer become disintegrated. The country there is granite, and the lode felspar; the consumption of powder is but trifling, it never being used unless the ground is of more than average hardness. A similar process is practised in some of the workings in Hungary and Saxony, though it is not in such general use there as in Norway and Sweden.

**"A. B." (Tavistock).**—Several models of boring instruments are to be seen at the Government School of Mines, in Jermyn-street. If application were made there, probably from some of the pupils, a description could be obtained. The mining lectures commence early in November.

**ANGLO-AUSTRALIAN GOLD MINING COMPANY.**—Mr. W. A. Coombe, of Hanover Cottage, and the other shareholders of this company who were anxious to obtain a public meeting, may have an opportunity of disposing of their shares. An individual, bearing the cognomen of "A. B.," and residing in Doughty-street, Gray's Inn-lane, wishes to purchase the scrip of the company: what use it is to be applied to it is not our province to enquire. The offices have long since been closed, the directors are all dispersed; we have no secretary, nor has there come to hand any letters either from Capt. Bell, the superintendent, or Mr. Jonathan Falder, the resident director. Under all circumstances, it appears the most prudent course that could be adopted would be to accept any offer that "A. B." might make. A committee of shareholders interested in the question to him: the initiative should, however, in the first instance, be taken by the larger holders, and it is their attention, through the medium of your columns, that I would draw to the subject: better to obtain a little than lose all. This company has been the most incomprehensible of all the gold adventures. They took our money in 1852; have never held a public meeting, or vouchsafed a word to their proprietary since then.—SCRIBER: Chancery-lane.

**"T. J."**—The address of the North Wheal Basset office is 50, Threadneedle-street; and the Rosewaine United is at the mine.

**BRITISH AUSTRALIAN GOLD MINING COMPANY.**—A few weeks since my attention was drawn to an advertisement in the Journal regarding this company, signed H. F. Ward; the tenor of it was that the directors had received advice from the scene of operations, which could be perused on application at the offices: these were of an unflattering nature. I and many others reside in the country, and cannot take a journey to town to read the report, as it would seem from the evidence, to raise the very money he is paying so dearly for. He feels dissatisfied about the account, and is quiring where they are, and his agent threatening the party who detains them with an interview with the Lord Mayor, the latter immediately takes out a summons, charging him and another with conspiracy to defraud, and is absolutely endeavouring criminally to prosecute on a bill still running. Such inconsistent, unparalleled conduct, I believe, has never been heard of before, and if such be the general practice of mining brokers, the sooner they repudiate it the better, as, if such sharp practice be encouraged, they will find no respectable people will deal with them. I know not what redress the law affords the defendants, but it must be very defective if individuals are to be annoyed and inconvenienced—their good name dragged in the mire with impunity. It is true, both the defendants left the court with an unsullied character, while the plaintiff, who could not recognise his own handwriting, cut but a very sorry figure. Some may urge the exposure in the witness box was sufficient recompense, and if the aggrieved parties are satisfied no one has a right to complain; but as one of the public having dealings in mines, I wish to know whether Mr. Stockwell's mode of doing business is the rule or the exception?—JUSTITIA: London, Sept. 30.

**THE ALLEGED FRAUD.**—It is to be hoped that the mode of doing business by Mr. Stockwell is not customary among mining brokers. A nobleman deposits security to the amount of about 6000*l.* pays for discount and renewal of 552*l.* the small amount of 119*l.*; the day after some of his shares are sold for 112*l.*, the rest being deposited with the broker, who, as it would seem from the evidence, to raise the very money he is paying so dearly for. He feels dissatisfied about the account, and is quiring where they are, and his agent threatening the party who detains them with an interview with the Lord Mayor, the latter immediately takes out a summons, charging him and another with conspiracy to defraud, and is absolutely endeavouring criminally to prosecute on a bill still running. Such inconsistent, unparalleled conduct, I believe, has never been heard of before, and if such be the general practice of mining brokers, the sooner they repudiate it the better, as, if such sharp practice be encouraged, they will find no respectable people will deal with them. I know not what redress the law affords the defendants, but it must be very defective if individuals are to be annoyed and inconvenienced—their good name dragged in the mire with impunity. It is true, both the defendants left the court with an unsullied character, while the plaintiff, who could not recognise his own handwriting, cut but a very sorry figure. Some may urge the exposure in the witness box was sufficient recompense, and if the aggrieved parties are satisfied no one has a right to complain; but as one of the public having dealings in mines, I wish to know whether Mr. Stockwell's mode of doing business is the rule or the exception?—JUSTITIA: London, Sept. 30.

**THE FIFTH VOLUME OF THESE "TRANSACTIONS"** are now ready, and will be forwarded from our office on the receipt of 1*l.* 1*s.*; or any bookseller will supply it for the same amount.

**THE ALLEGED FRAUD.**—It is to be hoped that the mode of doing business by Mr. Stockwell is not customary among mining brokers. A nobleman deposits security to the amount of about 6000*l.* pays for discount and renewal of 552*l.* the small amount of 119*l.*; the day after some of his shares are sold for 112*l.*, the rest being deposited with the broker, who, as it would seem from the evidence, to raise the very money he is paying so dearly for. He feels dissatisfied about the account, and is quiring where they are, and his agent threatening the party who detains them with an interview with the Lord Mayor, the latter immediately takes out a summons, charging him and another with conspiracy to defraud, and is absolutely endeavouring criminally to prosecute on a bill still running. Such inconsistent, unparalleled conduct, I believe, has never been heard of before, and if such be the general practice of mining brokers, the sooner they repudiate it the better, as, if such sharp practice be encouraged, they will find no respectable people will deal with them. I know not what redress the law affords the defendants, but it must be very defective if individuals are to be annoyed and inconvenienced—their good name dragged in the mire with impunity. It is true, both the defendants left the court with an unsullied character, while the plaintiff, who could not recognise his own handwriting, cut but a very sorry figure. Some may urge the exposure in the witness box was sufficient recompense, and if the aggrieved parties are satisfied no one has a right to complain; but as one of the public having dealings in mines, I wish to know whether Mr. Stockwell's mode of doing business is the rule or the exception?—JUSTITIA: London, Sept. 30.

**IRON SHIPBUILDING.**—Much has lately been said about the superiority of wooden over iron vessels. One of the most important to the good condition of both the *Urgent* and *Forward*. One of these vessels has performed a great amount of work during the last twelve months. Mr. John Clare, jun., having his model ready, will be better able to demonstrate his views; and it is some satisfaction now to perceive that the merits of this national subject are in a fair way of being tested.—METAL.

**IRON SHIPBUILDING.**—Mr. John Clare, jun., has his model now ready. Would it not be a gracious and just act if those concerned in the iron trade, as well as the merchants who are so much interested in the speed and security of our mercantile marine, were to subscribe to build a vessel on his plan, in order further to test the capabilities of the method which he has laid down?—NAUTILUS: Oct. 1.

**WREY CONSOLIDATION.**—Please correct an error which appeared in the accounts sent of the meeting held on the 21st inst. Instead of a balance in favour of adventurers, it should be, balance against adventurers, 71*l.* 10*s.* 7*d.*—W. WILLIAMS: Sept. 30.

**ALTEN AND QUENHAGEN UNITED MINING ASSOCIATION.**—Early in May last you announced that the ALTEN and QUENHAGEN Mining Companies, at a special general meeting, had by mutual consent resolved themselves into a United Mining Association, under the Limited Liability Act. Not having seen a prospectus of the new company, either advertised or noticed officially in your Journal, can you inform your readers in the country whether the resolution adopted last May has been carried into effect, and if not, what the impediment is?—SCRIBER: Liverpool, Sept. 29.

**THE GREAT NORTHERN RAILWAY ACCIDENT.**—It was with great pain that I read the heart-rending accounts of the appalling accident on the Great Northern Railway, and the more so because, some months ago, I transmitted circulars to most of the leading railways in the United Kingdom, pointing out a very simple and, at the same time, exceedingly efficacious and economical method by which, as in the present case, the passengers in the carriage where the axle broke—if that was really the cause of the accident—might, and no doubt would, have instantaneously communicated with the guard or engine driver; but only three of the companies had the politeness to write me, declining my invention. The Great Northern in all probability has by this single occurrence suffered more damage, independently altogether of the dreadful sacrifice of human life, than the use of my patent would have cost them for 20 years to come. I wish you to give publicity to this letter, because I humbly think that the time has now arrived when railway companies ought to be compelled to use all necessary and practicable precautions for guarding against such accidents; for as trade and railway traffic improve (as they are now doing) the danger from breaking of axles, and consequent derangement of carriages through friction and other causes, will proportionally increase.—J. G. TAYLOR: Glasgow, Sept. 26.

**FALLACIES OF ADVERTISING.**—"Alpha" condemns the manner in which, through the medium of advertisements, mines that, in many cases, are worthless are ushered into public notice, as well as the mode in which sometimes they are managed. These, in some instances, are patent facts. An advertisement, however, generally bears no authority with it; it merely gives publicity to a certain dictum, and can only be taken for what it is worth. The value of such assertions must be weighed according to the authorities from whence they emanate. It is impossible for any one to tell exactly at what distance a lode may be cut, or when a mine will make in depth, but there are certain geognostic and geological indications which may to some extent inform those who are acquainted with mining, with the probable results that may be arrived at. Discussion, if temperately carried on, most commonly tends to the diffusion of knowledge, but where it descends to scurrility it has no other tendency than to provoke a war of tedious and rancorous verbiage, uninteresting to all but those engaged in the useless and purposeless fray.

**THE RETURN.**—We are preparing the list of quarterly returns for publication. In a survey of the returns, we find that the accounts sent us, and published weekly, are very far from the actual returns; therefore, we again request mine managers, purveyors, and adventurers to send us, as early as possible, the actual amount of the respective sales.

**LEAD RETURNS.**—We found the particulars forwarded to us during the last quarter so much short of actual sales, that we refrained from publishing it. We have every week for the present quarter given all the particulars that we have received, and we are without returns from some of the principal mines; therefore, we beg the favour of managers, purveyors, and adventurers lending us a helping hand, and supplying us with the necessary information, it being our wish that the list should be as nearly correct as possible.

**"Inquirer" (Liverpool).**—The paper on "Copper Smelting," by Mr. J. T. Coombe, which lately appeared in an American paper, was exclusively written for this Journal, being one of the first published, and appeared in our columns in 1845, p. 344.

**"T. H. K." (Ashby-de-la-Zouch).**—The property of the Anglo-Californian Company, according to the report of the late directors, has been attached by a Mr. James Duggan, formerly of Kerry, for a debt contracted by Sir Henry Hanley, which the directors deny any cognisance of. The suit between the superintendent and directors has been referred to arbitration, so that the shareholders will not be able to glean much information as to their relative position. The property being then attached, there is no probability of its being offered for sale. According to all accounts, it would appear that the proprietary must contribute some small sum in order to wind-up the affairs of the association. In some quarters there seems to exist a disposition to wind-up matters amicably, but there are many who believe that litigation and Chancery is looming in the distance.

## THE MINING JOURNAL.

Railway and Commercial Gazette.

LONDON, OCTOBER 3, 1857.

The Sales of Copper Ore at the Cornwall Ticketings, during the quarter ending September 30, 1857, were as follows:—

Date.	Av. stand.	Prod.	Price.	Tons ore.	Pine cop.	Amount.
July 3	1230 15	6 1/2	£5 17 0	2980	190 2	£16,307 6 6
" 9	123 6	6 1/2	6 2 6	4190	291 1	25,792 10 0
" 13	133 18	6	5 7 0	4180	253 7	21,411 0 0
" 30	133 15	6 1/2	6 4 0	3730	246 19	23,267 0 0
Aug. 6	139 8	6 1/2	6 3 6	3562	228 9	22,047 10 0
" 13	140 8	6 1/2	6 14 6	4598	310 19	31,019 10 0
" 20	146 6	5 1/2	5 18 6	5692	337 12	33,740 0 0
" 27	145 5	6 1/2	6 17 0	2907	192 13	19,993 0 0
Sept. 3	145 10	6 1/2	7 2 0	2631	178 15	19,771 10 0
" 10	147 15	6 1/2	6 17 0	4348	275 18	29,085 10 0
" 17	149 4	6	6 10 0	4530	271 11	29,067 0 0
" 24	144 10	6 1/2	6 12 6	2533	164 6	16,778 0 0
Total for the quarter				45,676	2941 11	£287,782 5 6
For the quarter ending June				50,972	3158 7	311,847 10 0
Ditto March				40,755	3152 17	243,124 10 0
Ditto June				45,384	3287 6	316,599 10 0
Total for the year				194,737	12370 1	1,265,330 10 0
Showing a quarterly average of				48,684	3142 10	316,333 0 0
Corresponding quarter, Sept., 1856				49,636	3445 18	299,278 10 0

By the foregoing statement of facts, it will at once be perceived that the quarter just ended shows a very considerable reduction in the yield of Cornwall and Devon mines, in tons of ore, fine copper, and money; and we really do not see, notwithstanding the fair prospects in many of the dividend and prospective mines, whence the ore and metal is to be derived in those counties to provide the 200 or 300 tons of fine copper that they at present do not bring to market. We have good reason to believe that they cannot furnish it, from the fact that, with five or six exceptions, they were all short during the quarter just ended; consequently, the present standard should fairly be supported.

The variation during the last nine months has been puzzling—for instance,

	Prod.	Realised per ton.	Tons.
On Jan. 22	6	£6 15	5084
On May 21	6	5 17	5001
On July 23	6	5 7	4186
On Sept. 17	6	6 4	4530

We have so frequently brought these facts before our readers, and commented so freely and urgently as to a remedy, that we refrain from saying further upon the subject at this moment, referring them to our pages for several preceding quarters.

We are satisfied, and so ought the miner to be, that we receive a whole and fair price for our copper and copper ore whilst it retains its present rate, and we feel assured that the managers of all our mines, great and small, have brought to market all the ore they prudently could—in fact, we know that a considerable portion of it would have proved valueless in the years 1848 and 1849; and many an "old soldier," then out of service, has, whilst the standard has been up, been recommissioned, and gone to work again. Large piles of old burrows and halvans have been picked over and over by the diligent fingers of numerous lads and maidens throughout our mining districts, and yet the result shows a considerable falling off in the grand total of supply. A perusal of our quarterly returns from time to time will exemplify this; and we fear that mining shareholders as a body do not pay due attention to this fact, so frequently brought under their notice. A reduced dividend, and more frequently none at all, has ten times the effect on their nerves and sensibility; whereas had they compared our quarterly returns from the respective mines, they frequently would have been enabled to predict, and be prepared for, the result at least two or three months earlier than they otherwise would.

The Sales of Copper Ore at the Swansea Ticketings, during the quarter ending September 30, 1857, were as follows:—

Date.	Standard.	Produce.	Tons of ore.	Amount.
July 7.....	1112 11	15 1/2	2202	\$33,952 1/2
" 21.....	112 9	14 7-16	1876	19,389 10 0
Aug. 4.....	123 4	11 1/2	1519	17,991 10 0
" 18.....	123 6	14 1-16	2731	41,156 13 0
Sept. 8.....	137 8	13 1/2	2347	35,871 13 0
" 22.....	126 6	14 1/2	1614	25,421 14 0
Total for the quarter.....				\$172,863 17 1/2
Ditto, ending June.....				143,708 8 0
Ditto, ending March.....				169,350 0 0
Ditto, ending December.....				142,476 8 0
Total for the year.....				\$608,349 10 0
Showing a quarterly average of.....				157,087 2 1/2
Corresponding quarter, Sept., 1856.....				143,867 0 0



general tables, is not borne out when we come to consider separately the shipments which have been made during the eight months of all the articles identified with mining industry. On the contrary, the average increase furnished by the returns of the seven months is furnished by the increase within a very limited amount. The augmentation in the seven months, as compared with 1856, was 2,604,210, or at the rate of 372,030, per month; consequently, the increase for the eight months ought to have been a total of 2,976,240; whereas the declared excess is set down at 1,961,184, or 15,052 short of the average of the seven. The total declared value was 20,773,314, against 17,812,126 last year, and the difference is as mentioned.

Of what may be termed "metals"—that is, iron, steel, copper, brass, lead, and tin—it appears that the shipments this year amounted in value to 13,501,634; and as the exports of the same articles for the corresponding period of last year was 11,970,782, an increase is consequently shown of 1,530,852. The details will be found in another column. The value of steam-engines and other descriptions of machinery is set down at 2,465,723, against 1,634,191 in 1856—an augmentation of 831,532. The value of hardware and cutlery is declared at 2,688,815, which was 2,328,213 for the eight months of last year, or an increase of 360,602. Coals and culm show a total this year of 2,117,142, which last year was 1,878,940—therefore, an improvement of 238,202.

The total number of vessels employed in the transmission of these exports was 29,847 during the eight months, with an aggregate tonnage of 5,971,162. Of these vessels, 4044 were dispatched to British possessions, with a total tonnage of 1,622,672; and 25,803 vessels, with a tonnage of 5,348,490, were necessarily sent forward to foreign countries. Of the former category, 891 vessels, with a tonnage of 375,233, sailed for our different possessions in North America; but 441,928 tons were sent to the East Indies, although the number of vessels was only 633. To Australia, 638 vessels went forward, with 317,120 tons. In the shipments to foreign countries, France stands first, with a tonnage of 919,437; then follows the United States, with 853,495 tons; thirdly, "German states," exclusive of Prussia, 558,832 tons; and so on downwards to Wallachia and Moldavia, which took 9497 tons in 64 vessels.

The speciality of the shipments are not given in a separate table; but, from the general statement, it appears that of coals and culm our allies, the French, took the greatest quantity, the declared value being 396,114, for the eight months, and the tonnage for which that amount was paid is set down at 886,729. The United States received 100,917 tons, at the declared value of 65,788. Of hardware and cutlery, the largest amount was dispatched to the United States, the value being declared at 774,122. To Australia, the shipments of these articles was declared to be 301,656. In value, of bar, bolt, and rod iron, the United States received to the value of 1,555,385; of pig-iron, 157,959; of cast-iron, 15,717; and of wrought, 417,267; being together, 2,146,328. Of these articles, Australia took collectively to the value of 511,254.

We briefly alluded in our last Journal to a case which has within the last few days attracted no inconsiderable amount of attention, not only among the mining but also the mercantile community. At that period we gave a short *resumé* of the facts then before us, but we refrained from expressing any opinion until the subject matter had been fully investigated. Several of our contemporaries have designated it as "an extraordinary charge of fraud against a nobleman and others," and such it has truly appeared to be.

The facts of the case are simply these:—Lord CHAS. P. P. CLINTON had occasion (as many others in this great city have) to require a temporary accommodation; and in the due course of business, in an unlucky hour, was introduced to Mr. F. W. STOCKWELL, who deals in successful investments, and, according to his own statement, is not a bill discount, or anything else with a definite name, but has been in this "kind of business" for two years. From the evidence adduced at the Mansion House it will be seen that he had previously been the vehicle for discounting Lord C. CLINTON's bills.

Our space will not allow us to enter into details as to the whole transactions which had previously taken place, as they are entirely foreign to the present question. A bill was drawn for 2500, 10s.; for this and the 2500, bill Mr. STOCKWELL states he received 677, and for the renewal of 692, 10s. the trifling sum of 521—a pretty good discount! As security for this last there were deposited 100 Kelly Bray, 300 Wheel Zion, 125 Boiling Well, 70 Wheel Lewis, 5 West Providence, and 100 Nanteco shares, representing an aggregate value of between 6000, to 7000. All these were put out as a security with parties, the Kelly Bray shares were, however, instantly sold for 1124; but the plaintiff, before he disposed of them, had previously bought them back again of his brother. Notwithstanding Mr. STOCKWELL held all this security, part of which he had absolutely converted into money—which was, as he states, according to the tenor of his contract—he suddenly becomes alarmed, and hearing from an attorney, who subsequently conducted his case, that the books of the Wheel Zion had been falsified, and that Lord C. CLINTON did not really hold the shares, he determines, as a matter of stern duty, in his immaculate nature, in order to check commercial dishonesty, to bring to the bar of the chief magistrate of the metropolis of the world a respectable nobleman and a secretary of several influential companies. But this step he did not deem it necessary to take until previously he had been requested by Mr. JEFFREY, one of the defendants, to pay 2250, or return the bill and the security which he held, that gentleman stating, at the same time, he had never kept his word in any transaction. On Sept. 3, Mr. JEFFREY, not feeling satisfied about the securities, calls in company with Mr. BERRY, his solicitor, on Mr. STOCKWELL. This latter remembers scarcely anything of the conversation but that Mr. BERRY called him a swindler. Then he recollects, after his memory has been several times refreshed by Mr. GIFFARD, that unless he gives up the securities he is threatened to be taken before the LORD MAYOR. On September 8, five days afterwards, Mr. PEARCE, the clerk of the attorney, accompanied by his employer, appears at the Wheel Zion office, and inspects the books, in which he discovers, as he imagines, certain errors. It is only, it must be remembered, at this office he seeks to discover if things are not *en règle*. A case is supposed to be made out, and the defendants are summoned to appear before the great magistrate of the City. The case is gone into. Mr. STOCKWELL is shown a receipt for a bill that he has given; he does not know whether it is his signature or not; he will not swear it is not; and to the question, after it has been put to him twice by the Lord Mayor, and several times by the defendants' counsel, he replies he "dares say it is;" so that, according to his own showing, imputing no other motives, it would appear that Mr. STOCKWELL is sometimes subject to great forgetfulness, and signs his autograph, as he himself expresses it, "funny." It is not our intention here to proceed with details. The painful position in which the plaintiff was placed during his severe cross-examination by Mr. GIFFARD appeared to excite the commiseration of many of those who were witnesses to this deplorable exhibition.

In dismissing the case, the Lord Mayor stated that Mr. STOCKWELL had very large securities to cover any liabilities that might arise; that Lord C. CLINTON could not have had any intention to defraud Mr. STOCKWELL of his property; and that on his part there had been a great deal of irregularity in his dealing with the shares. Such was the opinion of the chief magistrate of Mr. STOCKWELL's mode of doing business, pronounced in open court, and we offer no comment upon it, emanating as it does from the first constituted authority in the greatest commercial city in the world.

With the ulterior results that may arise from the case it is not our province here to deal. Probably further proceedings, as intimated by Mr. STATION, will take place. The bill was not due, the securities were in the hands of Mr. STOCKWELL; yet, with all this, he charges parties who are now declared innocent with an attempt to defraud him. This has been rebutted, and in a civil action he will, no doubt, have the opportunity, as defendant, of hearing the case anew. This advantage he will have—that the plaintiffs will have to undergo the ordeal of the witness-box, which was so condemnatory at the Mansion House to his suit.

Those who are at all acquainted with the constitution of Wheel Zion and its specialities, must have plainly seen that other influences were at work besides those which were produced in court. Such displays as these tend greatly to injure legitimate mining; and the attempt, for the purpose of obtaining a particular object, to drag a person with a noble name into publicity was not only unmanly, but, at the same time, un-English, and such as we should have thought no one of the Anglo-Saxon race would have been guilty of. Whatever dissensions may occur in public companies generally, the spirit of Britons has been such that their quarrels have been settled either by accommodation or a manly struggle—a hand to hand fight. Those who have been beaten have retired, and the victors have remained masters of the field. If wrong be done, neither rank or position should shield individuals from the consequences; but

honourable men do not expect at every step to be envied by the dirty chicaneries of the law, or that ready tools will be found to throw themselves into the gap at the bid of unscrupulous intriguers. It is such as this, and other cases we could allude to, that have deterred many capitalists from embarking in mining adventure, not only on account of the liabilities they may incur, but likewise those they are brought into contact with. Many who know nothing of mining would be willing to adventure a little money, but we question much whether the publicity given to this case will induce them so to do. We regret that it has occurred; at the same time, we can assure our readers that there are yet many men of business who deal in shares with regularity, who when they have sold state such has been the fact, and do not disguise it under the term "dealt." This has been an isolated case: legitimate enterprise must and will prosper, and to all concerned in mining we would give this little word of advice—be cautious with whom you deal.

The Government of Victoria has given notice to that of South Australia that, in consequence of the latter having declined to pay her proportion of the subsidy for postal communications between the mother country and the Australian colonies, her mails will not be sent home by the overland route. This refusal on the part of South Australia arises from the fact that the steamer passes harbours on her own coast on its way to Melbourne, and the bags, therefore, have to be returned to her port by local steamers. The attention of the home Government has been called to this unsatisfactory state of things between the two local Governments, which entail so much inconvenience to the merchants and traders, and we find that the Post-office authorities in London contemplate a slight modification of the existing postal route, so as to adjust the differences, and to remove the dissatisfaction of the South Australians. A direct postal communication with South Australia, without any material diversion of the existing course of the steamers between Suez and Melbourne, is the great desideratum of the colony, and can be effected with facility by the plan we pointed out in the articles on this subject in our Journals of August 8 and 15—by the steamer delivering the bags for Adelaide, &c., at Nepean Bay, Backstairs Passage, which is within a few hours' sail of her own port. It is accessible in all weathers, and affords every accommodation for vessels of the largest tonnage. We believe that the adoption of this suggestion is the modification under discussion by the home Government.

Considerable advantage would accrue to all the Australian colonies by making Nepean Bay the first and last place of call to and from Suez, and would put an end to all existing causes of complaint; for, by simply laying down a submarine telegraph from this bay to Cape Jervis, and thence across the country to Goolwa, a total distance of only about 60 miles, there to join the wires between Adelaide and Melbourne, direct telegraphic intercourse would be established between Nepean Bay, Melbourne, Adelaide, Sydney, and the various principal towns and ports in the three colonies, as the lines are being laid down to connect them. By this simple and inexpensive arrangement the arrival of the mail from Suez would be simultaneously made known in all the colonies, and the heads of the general news be thus anticipated two clear days at Melbourne, five days at Sydney, and five days at Adelaide before the delivery of the bags according to present arrangements; while on the return voyage, by calling at Nepean Bay for the South Australian mail, telegraphic intelligence from each of the provinces would be simultaneously received to concurrent dates for transmission to Europe, so that the advices in England would always be to the same day from each of these important colonies of Victoria, New South Wales, and South Australia. The time thus gained by each province would be considerable, while by this notice at Melbourne of the arrival of the mail at Nepean Bay from Suez would give ample time for the local steamers to be made ready for the prompt transmission of the bags, either from Hobson's Bay or Queenscliff, for Sydney, New Zealand, Tasmania, and the other provinces of Australasia. By the adoption of this plan, moreover, the Government of South Australia would readily provide her portion of the subsidy, and thus lessen the charges now made on Victoria and New South Wales. We are assured that the colonists now in this country from the different provinces will fully concur in the proposition, and that it is a plan which will meet with general approval in the colonies, as giving more expeditious and equitable participation in the great advantages derived from the overland route.

The question of assuring agricultural produce—both crops and cattle—has of late been brought seriously before the attention of public men in France. The very heavy losses that have been sustained during the last few years by the provinces, from the effects of floods, hailstorms, frost, and cattle disease, to say nothing of the grape and potato blights, and which are estimated to cost the community on the average 80 millions of francs annually, constitute the case of those who urge the importance of the question being investigated and settled at once. There has been no hesitation on the part of the Government as to the expediency of introducing and encouraging the principle of farm assurances: the only doubt has been, whether it should be done by the State, or left to private enterprise—whether assurance should be voluntary, or whether agriculturists should be compelled to assure their stocks, by means of a particular and special tax, levied upon them alone. There is every reason to believe that Government, having its hands quite full already, would gladly leave the matter to private enterprise; but it is felt that, in this case, there would be great difficulty in winning the confidence of peasant farmers—proverbially suspicious—so as to induce them to insure in sufficient numbers to render assurance operations self-supporting and independent of Government aid. On the other hand, it is contended that, for the State to undertake the assurance of farming stock would be to carry out still further those Socialist principles with which the Government is held to be too deeply inoculated as it is. It is believed that subventions would henceforth figure in the budgets, and already from two to three millions of francs are annually applied, out of the public treasure, in the shape of assistance to agriculturists. A state assurance system, it is believed, would result in the taxation of industry and commerce for the protection of agriculture against risks to which, although perhaps under different forms, all human undertakings are liable.

Meanwhile, a project has been submitted by M. PERRON, Chef de-Section in the Ministry of State, to the Minister of Commerce and Agriculture, and referred to the Council of State, which proposes the formation of four assurance companies against loss by floods, hail, frost, and the mortality of cattle, to be united into one GENERAL BANK OF AGRICULTURAL ASSURANCES. The president and directors are to be named by the Emperor, and the mayors of the different districts and communes are to act as agents of the bank. The assurance is to be voluntary, but great reliance is placed on the influence of prefects and Government officers to render the practice almost universal. This project, which is the most feasible of any that have been submitted to the public in relation to this important question, has been carefully and calmly analysed by the M. HENRI COZIN, in a series of articles published in the columns of the *Paris Estafette*, and which have just been republished in the shape of a pamphlet.

One of the most gratifying features in the social economy of the age in which we live is the increasing evidence of forethought and provident habits, as shown in the multiplication and extension of assurance societies and savings' banks. More accurate calculations, based on more perfect tables of mortality, and improved modes of management, resulting from experience, have combined to place the system of life assurance on a very secure and satisfactory basis. Many provisions have been devised to enable the large class of the community whose incomes are fluctuating and precarious, and to whom, therefore, life assurance is the more necessary, to avail themselves of its advantages. It has been shown, from carefully-compiled statistics, that the premiums paid on discontinued policies amount to more than 2,000,000, annually. This enormous sum represents contributions from the class having uncertain incomes, to which we refer; and thus, when circumstances oblige them to forfeit their policies, the considerable savings of the more prosperous days go to swell the surplus capital of assurance companies. This casualty is to a limited extent provided for in some of the more recently-established institutions.

The money deposited in savings' banks averages about 6,000,000, per annum. Depositors have no security other than the amount deposited; their deposits must not exceed 300, a-year; no interest is allowed on more than 2000, and the actual interest obtained is only from 2 to 2½ per cent.

We are led to direct attention to these facts from our observation of the working of the LIFE ASSURANCE TRUST, which has been incorporated to afford facilities to the great mass of the community to invest their savings, of whatever amount, at a profitable rate of interest; and to provide for their families or representatives all the advantages of life assurance, on principles at once convenient, simple, and secure. The advan-

tages which the Treasury presents are the result of a judicious combination of banking with life assurance, its chief features being—the security offered to depositors in a large subscribed capital; the liberty of investing any sum from 1s. upwards; the convenience of lodging or withdrawing sums on any day during office hours; an interest on deposits, in addition to the peculiar advantages to be named presently, of not less than 3 per cent. per annum; and the right of depositors to inspect and investigate the accounts, and, if shareholders, to a voice in the management.

But the striking, and perhaps the most attractive, feature in the constitution of the Treasury is the provision that any deposit amounting to five shillings and upwards, withdrawable at pleasure, represents, in addition to interest, an amount of life assurance payable in the event of death before such sum is withdrawn. As, for example, a young man, aged 21, in good health, deposits 1000, on a "drawing account." He will have all the advantage of having opened a bank account, on which he may operate at pleasure, receiving 3 per cent. interest on the amount; whilst, should he die while the deposit continued in the Treasury, an additional sum of 1150, would be payable to his representatives. The amount of assurance may be increased, according to the state of the depositor's account, under equitable regulations, enacted with that view. Commercial accommodation is afforded to shareholders and depositors by the discounting of approved bills, or by advances on the simple deposit of securities. Besides the obvious ordinary advantages thus provided, a depositor may, by thus obtaining an advance in an emergency, leave his original deposit and insurance intact. The interest allowed on deposits for specified periods of not less than three months, and without life assurance, is five per cent., in special cases six per cent. Minor details are fully set forth in the regulations and printed tables of the Treasury: but we believe what we have stated to be sufficient to satisfy our readers that this institution makes important provisions for, and offers hitherto unusual advantages to, the public, of which we believe large numbers will willingly avail themselves the more its principles and working are understood.

On Monday next, the GOVERNMENT SCHOOL OF MINES, Jermyn street, will again commence its career of useful industry. The courses of chemistry and physics are the first in order, which will be led by Profs. HORMANN and STOKES. In the subsequent week Dr. PERCY will inaugurate the metallurgical curriculum for the ensuing season. Mr. WARINGTON SMYTH, on Nov. 2, will again discourse on mining. These will constitute the first course, which will terminate in the middle of February, after which period mineralogy, geology, natural history, and applied mechanics will be treated of by their respective professors.

There are numbers who would willingly attend these lectures if they were enabled so to do. The information diffused by them is now acknowledged to be of sterling utility to all those connected with mining pursuits; and it is, we believe, now only a very few—and these the most prejudiced—who do not acquiesce in the benefits they have conferred on those who have been enabled to profit by the teaching afforded them.

It is our intention, through the medium of the MINING JOURNAL, to afford a summary of all the lectures which bear more especially on mining and the sciences allied to it. The study of metallurgy has been long neglected in England, and many of the text books published on this subject have been merely translations from foreign works. The lectures which have hitherto been delivered by Dr. PERCY have been marked by a total absence of all scientific pedantry, and the chemistry of metals has by him to his pupils been rendered easy. The teaching of Mr. WARINGTON SMYTH, in the mining department, has been eminently practical; and as far as such branches of mineralogy as crystallography could be treated practically, such has been the case. The magnificent Museum which is at the disposition of the pupils is likewise a great advantage, as they have the opportunity there not only of looking over sections, but at the same time studying the models which there show the practical working of the different inventions and methods pursued in the working of mines.

The Mining Record Office will be found likewise of great utility, and the courteous superintendent, Mr. ROBERT HUNT—to whose fostering care and indefatigable industry it owes its present career of usefulness—is ready to afford information at all times to those who may require it.

So soon as the benefits of the Government School of Mines and its branches are well known, we are convinced they will be more appreciated, and that we shall no longer have a mining population ignorant of the first rudiments of their profession. Our miners have always been known for their practical ability; we would have them likewise attain some regular scientific requirements, so that they might not be the prey of the pseudo, brawling, self-educated, conceited man, who abandons possibly a honest trade to impose upon the community by a presumptuous display of knowledge of which he has but an imperfect smattering, and which is a positive detriment to mining. It is education which will root out these pretenders, and return them to the mechanical vocations they have left. Education will benefit the practical man: it will ignore the pretensions of the man who possesses a little knowledge, which is dangerous; and it is our duty, as far as possible, to assist those who endeavour to eradicate this great and crying evil.

We are told that in the most glorious days of Rome the boys were required to learn the 12 tables of the law by heart, and at the present moment, in the United States of America, the federal constitution is made the subject of a book, which is placed in the hands of every schoolboy; had the importance of a knowledge of the laws by which we are governed been as fully recognised in England, and had the shareholders in the LONDON AND WEST OF IRELAND FISHING AND FISH MANURE COMPANY received the benefit of a little legal instruction, we should probably have been spared the painful duty of alluding to the extraordinary conduct of Col. DANIEL, with regard to the winding-up of the company. It will be recollected that the company was registered under the Joint-Stock Companies Act, 1856; and, although at the time the concern was brought before the public there seemed every prospect of success, it appears that circumstances have since rendered it necessary that it should be wound-up.

The simplicity and effectiveness of the Act of Parliament offered every facility to the shareholders for winding-up without the interference of a court of law, and with a very small expenditure; consequently, upon the shareholders discovering their position, a special resolution was passed for winding-up voluntarily: a liquidator was appointed, and his remuneration was agreed upon. To this resolution, which was passed on Aug. 14, Col. DANIEL was a party, and yet the same day he made an application to the Court of Bankruptcy to have the company wound-up by the Court. How far he was justified in this course will be decided by the result of the hearing before Commissioner HOLROYD, on Oct. 21; but, from the Act, it appears certain that the petition cannot be maintained.

The Commissioner contended that Col. DANIEL was not "out of Court," as the resolution was not special until it had been confirmed, and were the 34th the only clause bearing upon the subject we might be inclined to entertain a similar opinion; but the case is different, and we cannot see how the Commissioner could have made an order for winding-up by the Court, without, in reality, providing for the winding-up of a company already in course of winding-up. The company, it is true, did not comply with the Act, since they had no power to confirm the resolution passed on Aug. 14 until one month had elapsed from that date. However, when the resolution was passed for winding-up voluntarily, no steps could legally be taken for having the company wound-up by the Court, and upon the same principal, had a petition been presented for winding-up by the Court, no resolution could have been passed for winding-up voluntarily, for, by clause 64, it is enacted that "the winding-up shall, if the company is wound-up by the Court, be deemed to commence at the time of the presentation of such petition as is hereinafter required to be presented to the Court; and if the company is wound-up voluntarily, be deemed to commence at the time of the passing of the resolution authorising such winding-up."

Now, if the Commissioner contend that the resolution was not special until it was confirmed, surely he will not deny that by the 64th clause the winding-up commenced on Aug. 14, immediately upon the resolution being carried; for it distinctly reads, "the time of the passing of the resolution authorising such winding-up;" and not "the time of the confirmation of the resolution," as it decidedly would have read had such been intended. We can only look upon the proceedings of Col. DANIEL as those of a person easily persuaded to run himself into difficulties; and we have no doubt that the protection which the Act affords to shareholders generally against the vexatious attempts of individuals to cause unnecessary litigation will be borne out by the Commissioner dismissing the petition.

Since writing the above, Col. DANIEL's petition has been withdrawn: it being stated that he took this step in deference to the majority of the shareholders. Mr. VALLANCE, who represented 83 out of 130 shareholders, said that the directors courted every enquiry: they were justified,



under the terms of their Deed of Settlement, in commencing with the capital which had been subscribed. The Commissioner observed, that in cases of this kind, where a meeting of shareholders was duly advertised, the attendance was of secondary importance if the meeting was properly convened; and it might be assumed that absent shareholders assented to the course determined on at the meeting.

### THE IRON AND COAL TRADES OF STAFFORDSHIRE.

[FROM OUR CORRESPONDENT IN WOLVERHAMPTON.]

OCT. 2.—The preliminary meeting of the Ironmasters Association was held at Wolverhampton on Wednesday last. As no idea was entertained of any alteration being made in prices, the meeting excited little interest, and was thinly attended; and, probably, the increasing tendency to treat the trade prices as a merely formal matter may have helped to diminish the interest felt in the meeting. A motion was passed formally maintaining the prices of last quarter, which are—for bars, 9s.; hoops, 10s.; sheets, 10s. 10s. There is no particular alteration in the position of the trade. The late monetary panic in America had the effect of considerably diminishing the orders from that country. Several of the cautious merchants countermanded their orders, while others were declined by the manufacturers, in the state of uncertainty as to commercial credit which prevailed. Happily the effects of the shock on the commercial interest in the United States are passing away, and a better demand may be expected from that quarter soon.

Pig-iron shows signs of increasing firmness. The ruling prices of good hot blast qualities are from 37s. 15s. to 47s. Some three or four makers who use very superior ore ask 47s. 2s. 6d., whilst inferior qualities may be purchased as low as 37s. 10s.

In another column will be found an account of the progress of the South Staffordshire iron trade during the last five years, from which it would appear that the consumption of pig-iron is quite equal to the supply, and it is probable that as soon as the slight stocks which accumulated during the hot weather are disposed of prices will be much firmer.

The General Trades of the district are tolerably active, notwithstanding the Indian troubles. The Tin and Japan Trades—a branch of manufacture largely dependent upon the Indian market—are very active at the present time.

The Coal Trade is active, both supply and demand being good. Prices are unaltered. Ironstone remains at about 18s. per ton for best qualities. The Earl of Stamford has commenced sinking for coal upon his Enville estate, and it seems probable that ultimately not only Enville, but Himley, Wombourne, and places in the direction of Claverley will become iron-producing districts.

The inquest held on the body of George French, the doggy who was one of eight persons killed at the recent colliery explosion at Netherton, concluded on Monday last. The facts elicited during the inquest are—that the "crop" side of the colliery in which the explosion occurred was very liable to sulphur in unfavourable states of the weather, and this liability had been increased by repeated falls of coal in the workings, which had impeded the ventilation. On the morning of the accident the charter master had descended the pit and forbidden anyone to enter the side of the colliery on account of the presence of sulphur, but the doggy, as is supposed, desirous of removing the fall of coal and restoring the ventilation, entered the workings on the "crop" side with other men, and an explosion was the consequence. It was supposed that he had taken in a candle, but none was found. His safety-lamp was found in a perfect state some yards from him. Mr. Brough, the Government Inspector, had, as early as Sept., 1886, visited the colliery, and pointed out to Mr. Mills, the proprietor, the necessity of increased ventilation. Mr. Mills promised that a gate road, such as Mr. Brough suggested, should be made, and repeated this promise from time to time. The ventilation and machinery of the colliery were greatly improved, but the ground bailiff considering it unnecessary, the gate was never cut. Mr. Brough thought if this had been done the stoppage caused by the fall of coal might have been easily removed, though he admitted that the accident might, notwithstanding, still have occurred. The jury consulted for considerably more than an hour, and returned the following verdict:—"That the deceased came by his death by an explosion of sulphur, which had accumulated in the pit, but what fired it there is no evidence to show. They, at the same time, are of opinion that the managers of the pit are exceedingly to blame for not having carried out Mr. Brough's suggestion for gate-road air."

### STATISTICS OF THE BLAST AND PUDDLING FURNACES OF SOUTH STAFFORDSHIRE.

OCT. 1.—By the courtesy of gentlemen who have taken the trouble to ascertain the facts, we are enabled to lay before our readers a detailed statement of the number of blast furnaces and of puddling furnaces in the district comprised in the mineral basin of South Staffordshire at the end of the month of September of the present year.

The last authoritative statement on this subject appeared in the Appendix to the Records of the School of Mines, published in 1853, which gave similar lists for December, 1852. The following table will show the comparative position of the iron trade on the South Staffordshire coal field in 1852 and 1857, and the advance made in the course of the five years intervening between those periods:—

	1852.	1857.	Increase.
No. blast furnaces in blast	127	137	10
Out of blast	32	22	10
Total	159	159	0
No. puddling furnaces	1452	2027	565

It appears from this table that the total number of blast furnaces in the district has increased within 5 years upwards of 12½ per cent., those in blast having increased nearly 24 per cent. During the same period, however, the number of puddling furnaces which consume the pig-iron has increased in number in the ratio of more than 38½ per cent.

The facts thus furnished suggest two considerations: first, the proportion in which the iron trade has increased in South Staffordshire as compared with the growth of the kingdom in general; and secondly, the relative proportions of blast and puddling furnaces in the district.

The only reliable data for judging of the growth of the iron trade of the whole kingdom is the information furnished by the Board of Trade returns of the amount of iron exported. The declared value of the iron exported last year was five times what it was in 1842, and more than double the amount which it reached in 1851, within an interval of five years—the same length of time as that which has elapsed between the time when the statistics of the iron trade in South Staffordshire were taken for the Mining Records and the present time. It is hardly likely that the home consumption has increased at the same rapid rate, while the iron trade has been rapidly developed in the Yorkshire and Durham coal fields, and in other parts of the country. Allowing for this, and remembering how large a proportion of the exported iron consists of pig-iron, none of which is sent from South Staffordshire, and rails, to which this district contributes in only a slight degree, the increase of nearly 40 per cent. in the number of puddling furnaces in rather less than five years affords most convincing proof that South Staffordshire is fully maintaining its relative position as a seat of the iron manufacture. It may also be remarked that the standard of quality in South Staffordshire has been gradually rising, and a very general feeling prevails that its iron manufacturers will do best by directing their energies to the production of a superior quality of iron.

With reference to the more rapid increase of puddling furnaces as compared with blast furnaces, the facts presented by these returns would go to show that the increase of the production of pigs has not kept pace with the increase of production of the manufactured articles. But this difficulty is partly explained by the fact that the average consumption of each puddling furnace is rather less than it was a few years ago, whilst the new blast furnaces recently erected are generally somewhat larger than those previously existing, and improved processes have resulted in increasing the production of the blast furnaces generally from 5 to 10 per cent. as compared with the production of 1852.

Besides the pig-iron produced in the district, some 1530 tons are brought into the district weekly from North Staffordshire, North and South Wales, Derbyshire, and the Forest of Dean, which is employed to mix with the South Staffordshire ore. On the other hand, some 2000 tons are consumed every week in the various foundries of the district, leaving rather less than the quantity of pig-iron produced in the district for use in the puddling furnaces; and after making all allowances, it would appear that the consumption of pig-iron is fully equal to, or rather in excess of, its

supply. The fact that during the last two months pig-iron has been rather flat, may be accounted for by the diminished make at puddling furnaces during the unusually hot weather of last summer. Supposing the 157 blast furnaces now in blast to produce each 110 tons of iron per week, and deducting for the excess of the consumption of the foundries over the quantity of pig-iron imported into the district, it would give an average consumption of full 8½ tons per week each puddling furnace. In full work a puddling furnace will consume 12 tons of pigs weekly, but repairs are frequently necessary, and other causes prevent their making so large a quantity of iron as they are capable of producing when in full operation, and it may be mentioned that of Lord Ward's 45 puddling furnaces 22 are not yet in work.

The former of the following tables shows the number of blast furnaces throughout the district in and out of blast at the present time, and the latter the number of puddling furnaces. The tables have been very carefully prepared, but possibly errors may have crept in, which we shall be happy to correct if advised of them. The statement will then form a valuable and interesting record of the South Staffordshire iron trade.

### BLAST FURNACES IN SOUTH STAFFORDSHIRE—SEPT. 1857.

Proprietors.	Name of Works.	Neighbourhood.	In.	Out.
Davis and Bloomer	Falsall	Walsall	2	0
Woodall and Smith	Hatherton	Ditto	2	0
Ditto	Windmill End	Dudley	3	0
F. C. Perry	Old Birch Hills	Walsall	2	0
Highway Brothers	Ditto	Ditto	2	0
John Jones	New Birch Hills	Ditto	5	0
Riley and Co.	Bentley Furnaces	Ditto	3	0
Samuel Mills	Darlaston Green	Darlaston	3	0
Addenbrooke and Co.	Roughay	Ditto	2	0
David Jones	Darlaston	Ditto	1	0
Chillington Company	Chillington Company	Wolverhampton	4	0
Ditto	Mow Heath	Ditto	3	0
W. and J. Sparrow and Co.	Oiler Bed	Ditto	3	0
Ditto	Priestfields	Ditto	3	0
Wm. Ward and Sons	Millfields	Ditto	3	0
W. Riley and Son	Wolverhampton	Ditto	3	0
Pool and Co.	Parkfield	Ditto	4	0
Parkfield Iron Co.	Parkfield	Ditto	4	0
Hickman Brothers	Bilston Bank	Bilston	1	1
Blackwell and Co.	Bilston	Ditto	5	0
Baldwin and Co.	Bilston	Ditto	1	0
Hickman Brothers	Stonesfield	Ditto	1	0
John Jones and Murrett	Spring Vale	Ditto	3	0
J. and J. Turley	Cosley	Ditto	2	0
H. and B. Whitehouse	Ditto	Ditto	2	1
Thos. H. Pemberton	Deepfields	Ditto	2	1
Jno. Bagnall and Sons	Captonfield	Ditto	3	0
Wm. Banks	Edinghall	Ditto	1	1
E. Gibbons, Junr.	Ditto	Ditto	3	0
Lord, Foster, and Co.	Old Park	Wednesbury	3	0
A. Groucutt and Sons	Broadwaters	Ditto	3	0
P. Williams and Sons	Wednesbury	Tipton	3	0
J. Haines and Co.	Willingsworth	Ditto	3	0
G. Thompson and Co.	Crookhay	West Bromwich	2	2
Jno. Bagnall and Sons	Gold's Hill	Ditto	2	1
Mottram and Dealey	Toll End	Tipton	2	0
J. Colbourne and Sons	Himley	Ditto	3	1
Gibbons and Roberts	Ditto	Ditto	2	0
E. Creswell and Sons	Ditto	Ditto	2	0
Thos. Morris and Sons	Ditto	Ditto	2	0
Hopkins and Co.	Dudley Port	Ditto	2	0
Lord Ward	Congreave	Ditto	2	1
Wm. Bennett	Oldbury	Ditto	4	0
P. Williams and Sons	Union	Ditto	3	0
Blackwell and Co.	Russell's Hall	Dudley	4	1
Frimston and Co.	Old Farm	Ditto	4	0
J. Bradley and Co.	Shot End	Ditto	4	0
B. Gibbons	Kesley's Hall	Ditto	0	3
B. Gibbons	Corbyn's Hall	Ditto	3	0
Hall, Holdcroft, and Co.	Ditto	Ditto	1	0
W. Maheux	Ditto	Ditto	4	0
W. and J. Firmstone	Ley's	Ditto	3	0
Hall, Holdcroft, and Co.	Brettle Lane	Ditto	2	0
Ditto	Ditto	Ditto	3	0
Lord Ward	Ditto	Ditto	3	0
Cochrane and Co.	Netherton	Ditto	2	0
M. and W. Grasebrook	Ditto	Ditto	1	1
Every and Marten	Parkhead	Ditto	2	0
W. Haden	Dixon's Green	Ditto	1	1
Dawes and Sons	Withymoor	Ditto	2	0
British Iron Company	Bumble Hill, &c.	Ditto	6	2
T. and J. Sadger	T. and J. Hill	Ditto	1	0
Pfeiffer, Solly, and Co.	Willenhall	Wolverhampton	2	0
H. Richards	Stour Valley	Dudley	2	0
Total			157	22

### MILLS AND FORGES IN SOUTH STAFFORDSHIRE DISTRICT, WITH THE NUMBER OF PUDDLING FURNACES.

Jno. Bradley and Co.	Stourbridge Works	Stourbridge	23
Ditto	Brierley Works	Kingswinford	38
Ditto	Shut End	Ditto	34
Jno. Bagnall and Sons	Imperial Works	Wednesbury	26
Ditto	Lee Brook	Ditto	25
G. B. Thorneycroft and Co.	Gold's Hill	Tipton	31
Ditto	Shrubbery Works	Wolverhampton	30
Ditto	Swan Garden	Ditto	30
Barrows and Hall	Bloomfield Works	Tipton	56
Ditto	Factory Works	Ditto	32
Ditto	Tipton Green	Ditto	11
Chillington Iron Company	Chillington Works	Wolverhampton	56
Ditto	Lee Brook	Wednesbury	23
Ditto	Bradley	Bilston	14
Ditto	Captonfield	Ditto	10
Walter Williams	Albion Works	West Bromwich	50
Ditto	Great Bridge	Tipton	12
British Iron Company	Congreaves	Dudley	56
Ditto	Brierley Hill	Ditto	18
Ditto	Spring Vale	Bilston	68
John Dawes and Son	Bromford Works	Oldbury	26
W. and J. Sparrow and Co.	Oiler Bed	Wolverhampton	32
Ditto	Bilston Works	Bilston	32
Philip Williams and Sons	Wednesbury Oak	Wednesbury	48
J. Walker and Co.	Patent Shaft Company	Wednesbury	48
Lord Ward	Round Oak	Brierley Hills	45
Corbyn's Hall Iron Company	Corbyn's Hall Works	Kingswinford	40
Solly Brothers	Lee Brook	Wednesbury	25
Ditto	Great Bridge	Ditto	19
W. Riley and Son	Highfields Works	Bilston	26
Ditto	Regent Works	Ditto	12
Rose, Higgins, and Rose	Bradley Works	Ditto	9
Ditto	New Bradley Works	Ditto	9
Browning and Jackson	Millfields Works	Ditto	24
Ditto	Deepfields Works	Ditto	11
Brown and Frere	The Lays	Dudley	28
Ditto	The New Lays	Ditto	10
J. and E. Walker	Old Church, & Gospel Oak	Tipton	27
Atlas Iron Company	Atlas Works	West Bromwich	13
Oak Farm Company	Oak Farm	Kingswinford	30
R. Jeffries	Hart's Hill Works	Tipton	20
E. Creswell and Sons	Tipton Works	Tipton	20
Ditto	Moxley Works	Wednesbury	11
Thomas Wells	Moxley	Ditto	25
Hickman and Co.	Groveland Works	Tipton	18
Ditto	Stonesfield	Bilston	10
Davis and Bloomer	Falsall Works	Walsall	12
Ditto	Girchills	Tipton	11
Bryford and Lancaster	Walsall Works	Ditto	9
Ditto	Greet's Green	West Bromwich	20
David Jones	Herbert's Park	Darlaston	15
Ditto	Bilston Brook	Bilston	8
Plant and Fisher	Dudley Port Works	Tipton	20
E. Page and Sons	Koway Works	West Bromwich	23
S. Mills	The Green Iron Works	Darlaston	23
Lee and Bolton	Bankfield Works	Stourbridge	23
S. Groucutt and Sons	Bankfield Works	Bilston	20
Fletcher, Rose, and Co.	Albert Works	Moxley	21
Daniel Rose	Bull's Bridge	Ditto	10
Wm. Rose	Batman's Hill	Bilston	12
Wright and North	Monmore Green	Wolverhampton	11
Ditto	Cleveland Works	Ditto	9
Isaac Jenks	Minerva Works	Ditto	13
Hall, Holdcroft, and Pearson	The Level	Brierley Hill	17
Ditto	Brookmoor Works	Dudley	6
Silvester and Co.	Spon Lane	West Bromwich	12
Beasley and Farmer	District Forge	Stourbridge	12
Millington and Co.	Summer Hill	Tipton	15
P. Gilw and Co.	Dudley Port Works	Ditto	14
Badger and Co.	Ditto	Ditto	14
Evers and Sons	Cradley Works	Dudley	17
N. Hingley and Son	Netherton Works	Ditto	16
John Whitley and Co.	Brettle Lane	Stourbridge	16
Corkley Iron Company	Corkley	Kidderminster	12
Lloyd, Foster, and Co.	Old Park	Wednesbury	12
Ditto	King's Hill	Ditto	6
Deakin and Dodd	Monmore Lane Iron Wks.	Willenhall	14
Mottram and Dealey	Toll End Works	Tipton	14
Eagle Coal and Iron Company	Greet's Green	West Bromwich	14
J. Whitehouse	Ridge Acre	Ditto	19
Orange and Holden	Great Bridge	Ditto	10

Proprietors.	Name of Works.	Neighbourhood.
John Stones and Son	The Grove	Smethwick
Granger and Powers	Ditto	Ditto
Keep and Watkin	Swin Works	Stourbridge
Geo. Thompson and Co.	Crook Hay Works	West Bromwich
Gilpin and Sons	Wedge's Mill	Walsall
J. Marshall	Nonway Works	Wednesbury
Johnson and Co.	Church Lane	West Bromwich
Bissell, Kay, and Bissell	Hill Top	Ditto
Hipkins and Co.	Great Bridge	Ditto
J. Gregory	Spon Lane	Ditto
Hartland and Co.	Smethwick	Ditto
Wm. Marshall	Ditto	Ditto
J. Hodgkiss	Ditto	Ditto
Wm. Morris	Ditto	Tipton
J. Haines and Co.	Sheep Wash	Ditto
Hunt and Son	Brade's Works	Oldbury
S. B. Whitehead	Ditto	Tipton
Wm. Baldwin and Co.	Boverux Works	Bilston
Wm. Banks	Ettingshall Works	Ditto
Thompson and Burford	Bradley Hall Works	Ditto
Hampton and Brereton	Pot House Bridge Works	Ditto
Baldwin and Co.	Horsely Fields Works	Wolverhampton
Whittington Company	Whittington Works	Stourbridge
Banks and Morgan	Broadwaters	Kidderminster
Baldwin Brothers	Wildon Works	Ditto
Crown Forge	Ditto	Smethwick

### REPORT FROM YORKSHIRE, DERBYSHIRE, AND LANCASTRE.

[FROM OUR CORRESPONDENT IN CHESTERFIELD.]

OCT. 1.—The preliminary meeting of the ironmasters at Wolverhampton, on Wednesday, has created but little interest in these counties, the fact that no disposition was evinced by the trade to alter the rates for iron for the next quarter. The orders for general descriptions of iron are numerous, and prices are maintained with a degree of regularity which speaks well for the future position of the trade.

The Coal Trade continues to improve, and we hear of further indications of prosperity. The production continues to increase, and demand for the winter has also improved.

The accident which happened at the Eyam Mine by the breaking rope caused an impediment to the works, and the sale of ore was so large as it otherwise would have been. The company have received small their own ore. We learn that the smelters offered lower terms, the company resolved not to accept the reduction, and they at once determined to smelt their own ore.

The North Derbyshire (Wren Park) Mine has very much improved the prospects of the works are very encouraging indeed. There is nothing but bustle and activity about them. We visited the mine, built, and found everything in business order. Several sheds are built for the purposes of the mine. A dressing-machine has been sent, and some very fine ore was being crushed and dressed ready for sale. saw several specimens of ore of a highly promising character, and a man of ordinary strength could lift.

The Mill Dam Mining Company have some good prospects before them. The mine is regarded as the best trial in Derbyshire. On Monday the company took the Smithy Coe Mine, which adjoins the Mill Dam, and this additional ground will afford ample scope for the operations of the company. The valuation of the machinery of the mine will take place next week, and we hope in our next to have to report the amount of valuation, which is expected to be only of moderate amount. The company are now on the look-out for a steam-engine, and we anticipate a call will be made immediately. Nothing has yet been paid on the deposit of 2s. 6d., and as the works are intended to be commenced with immediately, the calls will have to be made within a short period each other. It has also been suggested that the shares should be issued into 14, instead of 24 shares. The scrip will be issued shortly.

The Stoney Way Mining Company, at Matlock, are pushing forward the engine works at their mine, and they expect to be at work in a few weeks. The shares in this undertaking are at a good premium.

There has been a better feeling pervading the mining share market each, and there are no sellers. We would advise the shareholders of every share in this undertaking at the present time. From an examination and comparison made between the ore of this mine and that at Dugby, there is the strongest reason to believe that the North Derbyshire Company are working on the same vein, and who can tell but that in a time it may prove equally rich?

### STOCK, MINING, AND RAILWAY SHARES IN IRELAND.

[FROM OUR CORRESPONDENT IN DUBLIN.]

OCT. 1.—Within the last week prices of stocks here have scarcely ried, but business—especially share business—was rather dull. No shares were somewhat firmer, but those of the principal railway dropped, and were quoted lower than for some time previously, with exception of the Great Southern and Western, the Irish South-East, and the Killarney Junction. The traffic receipts on all the Irish railways show a good increase over those of the corresponding period last year. The following are the latest quotations: Consols, 89½; New Three Cents, 89½; Hibernian Bank, 32½; National Bank, 36½; Royal ex div., 22; City of Dublin Steam, 75½; Mining Company of Ireland, 16; Cork and Bandon Railway, 8½; Cork and Passage, 11½; Junction, 38½; Dublin and Drogheda, ex div., 39; Dublin and Wicklow, 5½; Great Southern and Western, 97½; Dundalk and Enniskillen, div., 13; Midland Great Western, ex div., 48.

I understand it is intended to form a joint-stock company to work Milltown Zinc and Silver-Lead Mine, situate near Tulla, in the county of Clare, and I have seen a private statement, intended as a kind of prospectus, exhibiting the objects of the company, and the reasons for inducing the promoters to form a joint-stock company to work it. The objects are plain—the reasons conclusive; and although it is likely that the shares will be privately subscribed for, I will offer no apology for bringing under public notice what may turn out for the public benefit. This mine, at present in the hands of an English gentleman, was purchased about five years ago for 2000l., and considerable sums have been expended since in bringing it to its present position, and which is a satisfactory one, the mine yielding a fair profit on the outlay. The promoters are perfectly confident of success, judging from the present workings, the appearances, and the locality. The situation is, indeed, most favourable in the neighbourhood of the celebrated Ballyhickey and Killarney Mines, which proved so remunerative, and, like them, the present indications are such as to lead strongly to the belief that the numerous streams and branches will ultimately lead to a large deposit of metal similar to those found in the mines I have alluded to. The last cargo of silver was sold in June last to Messrs. Sims, Williams, and Co., of Swansea, 19s. 10s., and the blende at 37s. 10s.; and although the present workings are necessarily restricted, the raising of blende during the last month a profit equal to 30 per cent. Independent of the prospects held out by the mine itself, the document to which I allude states that a certain revenue is obtained by the owner from the burning of lime, for which a grant of man exists in the neighbourhood. On this subject Captain King, of Shalloe Mines, reports:—

"I, therefore, advise that you immediately build a larger sized lime-kiln, and systematically through the burrow, collect your lime, burn your lime, for which abundant market is to be found in the immediate locality, and I have not the doubt in the works. The lime will leave you a profit of 25 per cent., and you have the blende for the dressing; and I may remark that you have a sufficient quantity of stuff at surface to continue burning at the rate of 800 barrels per month for four years. From the position of the burrow it is impossible for me to form an estimate of the quantity of blende it will produce, but taking a probable view of case, I do not think I could be accused of exaggeration if it were put down at 1000 for the same period. There is a beautiful stream of water about a quarter of a mile from the mine, which can at any time be made available for turning a water crane and dress the ore."

It is considered that the total sum that will be required to purchase the mine and work it to a dividend state will be about 4000l., and it is intended to call this amount up the first year. Judging from its antecedents, and from what I can hear of this mine, this speculation, which the promoters consider should be regarded more as a matter of certainty, will no doubt be eminently successful. A very neatly-executed map, showing the veins and run of the lodes, is annexed to the prospectus.

The Alliance and Consumers' Gas Company have just declared a dividend than usual: though a short time since they reduced the price of the gas 10d. per 1000 cubic feet, it is more than 7½ per cent. per annum. The works of the company are stated to be in the highest state of efficiency, and unsurpassed by any gasworks in the kingdom, and the pits on working show an increase of nearly 1600l. over the same period.



which is stated to be attributable as well to the increased consumption of gas as to the lower price of coals. Special allusion is made to the directors' report to the great value of the long clay retorts, a range of which are now being set up, and from which the directors expect that benefit will arise.

The Irish South-Eastern Railway Company's meeting a dividend of 10s. per share, or over 3½ per cent., was declared. This company is by the Great Southern Company. A portion of the Wexford and Waterford Railway, it is expected, will be opened next spring.

A cargo of about 45 tons of silver-lead and copper from the Shales is now on the way for market, and though a considerable quantity is present at surface, it has lately been found impossible to get water from the ore and fit it for the market, in consequence of the long-continued dry weather. The sulphur ore, of which it appears there is an ample supply, will soon, I hope, become a source of profit. I understand several parties are looking after it.

### INDUSTRIAL PROGRESS ON THE CONTINENT.

[FROM OUR PARIS CORRESPONDENT.]

1.—The improved tone anticipated in our last for the money and markets here has taken place, and what is more satisfactory, it proceeds constantly and regularly; indeed, with so much persistence as to lead to the belief that the worst is past. Every week now will contribute to restore vigour, activity, and firmness to our transactions. The mail from New York shows that the crisis is past there, and that commerce is being restored, which is of great importance to French manufacturers, whose best customers are our transatlantic cousins. The late fearful harvest will prevent the exportation of large sums of money—advantage now beginning to be felt, and which contributes materially to the present financial improvement. The vintage, equally abundant, of the best quality—for the present is a comet year—is in the course of being effected under the most favourable conditions. So abundant is the supply of oaks for storage, in many districts, in fact, that the inferior produce of previous years is spilled to prevent the present year's wine. The benefits that will result from the vintage will be readily understood, when it is remembered that it is an article of first necessity to all classes of the population here, and that it is the chief source of income to a large section of the agricultural interest. The influence of these considerations has been felt, and at least will be judged from the fact, that in the last week Three per cent. have gone up from 67 to 68-10 frs.; Bank Shares, from 2800 to 2810 frs.; and Credit Mobilier, from 840 to 912-50 frs. In the Railway market, Orleans shares have risen from 1370 to 1392-50 frs.; Northern, from 870 to 897-50 frs.; Easterns, from 675 to 705 frs.; Paris and Lyons, from 587 to 592-50 frs.; Southern, from 630 to 640 frs.; Westerns, from 722-50 frs.; and other shares in proportion. From these few examples the reader will be able to judge for himself, better than by any assertions, how general and how substantial is the improvement.

The iron market, a like improvement has taken place, although not to the same proportions. Refinery pig-iron is the only exception, and article remains as flat and unobtainable as it has done during the last two years. The quotations are from 150 to 155 frs.; would-be customers the lower sum, which manufacturers will not accept; they ask the 150 frs., which the former will not give. As both parties stand obstinately, the result is that there is no business done at all. Rolls, on the contrary, go off briskly at from 325 to 340 frs.; according to the nature of the order, delivered free in any of the Eastern Railway stations; consequently, all the works are actively employed. The same applies with, perhaps, greater force to forged iron; the manufacturers have sufficient orders on hand to relieve them from all anxiety for months to come. The prices are—from 370 to 390 frs. in the stations at the works. Chains are in request at 75 frs., mixed numbers. A keel firm at 65 frs. for No. 16, though the orders just now are particularly large nor important. In all probability a greater improvement would have already taken place in the supply and in the price of the various works but for the drought which still exists, and, by decreasing the available motive power, diminished the rate of production. The effect of the late rains has entirely passed away, and streams are as low as ever they were. This temporary disadvantage no doubt, result in a permanent good; for several works are now set up steam-engines, which will give regularity and certainty to the production. In the other metals there is no variation to chronicle. The importations for August, and the first eight months of the year, are as follows:—

Imported.	In bond.	Customs Total.	Total for year.
Fr. 21,118	m.m.	Fr. 21,118	Fr. 21,118
Belgium	1,917	11,370	20,751
France	3,812	2,650	8,440
Germany	39,604	75,762	306,833
Italy	37,830	—	261,059
Spain	16,333	121,522	430,095
Switzerland	34,356	—	124,257
Other countries	29,304	29,499	67,376
Total	1,777	522	2,964
Belgium	3,812	4,236	9,323
France	6,252	7,064	89,047
Germany	1,139,105	—	15,230,155
Italy	1,235,118	—	8,732,878
Spain	533,180	—	586,640
Switzerland	347,402	—	4,466,610
Other countries	153,890	—	84,346
Total	—	—	629,673
Exports	—	—	27,240
Total	—	—	1,252,885

Exports of objects likely to interest your readers during the period have been—

Name.	Exported in Aug.	Total for year.
Machinery, value	825,673	6,767,324
Silver	2,815,330	15,964,522
Gold	17,532	264,104
Porcelain	5,442	37,293
Iron	21,599	183,994

### REPORT FROM MONMOUTHSHIRE AND SOUTH WALES.

[FROM OUR CORRESPONDENT IN SOUTH WALES.]

1.—The state of the Iron and Coal Trades here affords little occasion for remark. Affairs have not changed materially from the position indicated last week. For pig-iron the demand appears to improve slightly, while in that for bars no diminution has taken place. The coal is steady, and prices rule firm. The principal orders are received from home, there being less enquiry from foreign parts.

An important meeting has been held at Merthyr, for the purpose of instituting a Society of Agents for improving themselves for their respective districts. I shall keep you informed on the progress made by the institution, which it is anticipated will be supported by the ironmasters, as they derive the largest amount of benefit from its operations.

A meeting was given at the Tondy Works, Bridgend, Glamorganshire, last week to about 250 children who are employed there. The proprietors, Mr. John Brogden and Sons, have been accustomed to treat their employees very liberally, and especially the juvenile members. They were yesterday invited to the house of Mr. James Brogden, and an unlimited supply of provisions was served out to them. After these were distributed, they were joined by their parents and the workmen, and a variety of amusements were indulged in. The Tondy Works are in a very flourishing condition, and the neighbourhood has been much improved by them.

An explosion was heard, and upon examination it was discovered that the boiler of the steam-blast had been completely shattered, as large pieces of thick cast-iron plate strewed the ground in all directions. It is conjectured to be a current of foul air from the furnaces, which was driven along the tube while the engine was standing still, and ignited. No human being was hurt by the accident, though half a dozen unlucky fowls met an untimely end, and were blown to pieces.

It is not the only accident we have to record as occurring at Rhymney. On Monday last a man was engaged in cleaning one of the boilers of the Guide Mill engine, when he was suddenly felled to the ground by a plate, which descended on him from the top of the boiler. The next day a miner was rescued from the Duffry Pit with his thigh broken, and immediately afterwards another man fell from a crane and broke his collarbone. This singular collection of accidents looks as if "pay" week had not gone far by.

Two accidents, attended with loss of life in each case, have also taken place at Dowlais. In one a man was killed at the Pen-y-daren Collieries fall of roof, and in the other, at No. 3 Plymouth pit, a lad was killed

by a similar occurrence. The juries returned verdicts of accidental death in each case.

The Brithdir Colliery, for the second time, was brought to the hammer on Thursday, at the Westgate Hotel, Newport, by Mr. Henry Bruton, of Gloucester. The estate is situated in Gelligarr, consists of farm-house and land, with extensive and valuable coal fields under. The property is situated in the Rhymney Valley, and is not far from the Rhymney Iron-Works. There were very few gentlemen at the sale, and after some little time the estate was bought by Mr. F. Talbot, Newbury, Berkshire, on behalf of the mortgagees, for 11,000l. The property will now belong to the mortgagees.

### CHEMICAL GLEANINGS.—No. V.

BY RICHARD V. TUBSON, F.C.S., F.S.A.

ON SILICIUM AND THE METALLIC SILICIDES.—MM. Deville and Caron, in a paper on this subject, state that the property of dissolving in each other and forming certain combinations called alloys, is a character common to all the metals. Alloys are regarded as solutions of one metal in another, and may be compared with aqueous solutions from which the pure substance or its hydrate can be separated by change of temperature or evaporation. The same is true of some metalloids—carbon, boron, and silicon, which, in this respect, comport themselves like metals, and may all be obtained in this way from true alloys. The authors recommend zinc as the best solvent for silicon, and say that it may very easily be prepared, and in considerable quantity, by the following process:—A mixture of 3 parts of fluosilicate of potash, 1 part of sodium cut into small fragments, and 1 part of granulated zinc, is introduced into an earthen crucible, previously heated to redness, which temperature is to be maintained until the scoria is completely fused. Care must also be taken that the temperature does not rise sufficiently high to volatilise the zinc. When the fusion is complete the crucible is allowed to cool slowly, and then broken; the ingot which it contains will be found penetrated throughout with long needles of silicon. To extract it the zinc is dissolved in hydrochloric acid, and the remaining crystals of silicon rendered quite clean by being boiled in nitric acid. If the temperature employed be sufficiently intense to drive off the zinc, the silicon which remains is entirely free from that metal, and in the form of a fused mass. Pure silicon may be fused and run into moulds. Silicon forms some alloys with copper which appear to possess valuable properties. One containing 48 per cent. of silicon has a fine bright bronze colour, is nearly as hard as iron, and works freely without clogging the tools. The alloys containing more silicon than the above are much harder, but are less ductile.

GRINDING OF COLOURS.—Professor Vogel recommends spirits of wine as a medium for grinding colours which are to be mixed with varnish. Spirits of wine having a low specific gravity, a finely divided powder is much sooner produced than when water is employed, and the necessity of drying the ground pigment, before mixing it with varnish or turpentine, is obviated. The author likewise observes that spirits of wine may be frequently advantageously used in grinding minerals and similar bodies for chemical purposes.

METHOD OF CLEANING SILVER VESSELS.—Prof. Bottger states that silver vessels may be readily cleansed by immersing them in a saturated solution of borax, or else in a tolerably strong solution of caustic potash, in contact with metallic zinc. A zinc sieve may be used.

SIMPLE ELECTRICAL MACHINE.—A simple, cheap, and effective electrical machine, according to M. Thore, may be made by joining the ends of strips of paper about eight inches wide, so as to make an endless band, and stretching it on two wooden pulleys covered with silk, one of which is rapidly turned by a handle. M. Thore states that electricity was developed by pressing a warm flat-iron upon the paper as it passed over one of the pulleys, and that the effect so produced was remarkable. It is also asserted that a machine so constructed may be worked under atmospheric conditions which would arrest the action of those ordinarily in use.

### WEEKLY LIST OF NEW PATENTS.

GRANTS OF PROVISIONAL PROTECTION FOR SIX MONTHS.—J. M. PROCT, Officer in the Imperial Navy: Steam generators.—G. J. MACKRELAN, Falcon-Street, London: Floating docks.—W. GRACE, Falmouth: Propelling vessels.—S. HOOD, Charlotte-street, Middlesex: Generating electricity, and for transmitting electric currents from place to place.—A. HEDDERLEY, S. LEVITCH, Paris: Boiler for generating steam.—E. LAVERGNE, Aiden-street, Limehouse: Distilling products from coal.—M. MILLER, P. CANAL, Paris: Producing gas.—J. FAYROUX, Low Moor, W. Yorkshire, Wakefield, T. SNOWDON, Middlesex: Permanent way of railways.—G. BAURINHOUS, Dortmund, Prussia: Treatment of iron ore (crude iron) for the production of iron and steel.—J. EDWARDS, Aldermanbury: Improvements in railways to facilitate locomotive engines ascending inclines.—W. JENKINS, Miles Platting Manchester: Furnaces or fire-boxes for locomotive boilers to adapt them to the consumption of coal and the smoke arising therefrom.—A. GRAY, Glasgow: Lubricating mechanism.—T. GRAY, Leamington: Grinding corn, and in generating gas on machinery.—R. BROWN, Glasgow: Moulding or shaping metals, and other materials.—P. A. FONTAINE-MOREAU, London: Railway break.—J. LUDKES, Birmingham: Motive-power engine.—H. BESSEMER, Queen-street-place, London: Manufacture of cast-steel.

DRESSING OF ORES.—Mr. G. H. Thost, of Tyndrum, states that where mines in hilly countries are on high ground, and the dressing mill a considerable distance off, it is sometimes a question of economy to bring the ore to the mill in as concentrated a state as possible. Disregarding entirely the picking stuff, the smaller sizes, from a cubic inch downwards, are fit for jigging. This operation is usually performed by a large wooden lever, on which the sieve is hanging, the sieve being turned by hand. One of the objections against it is, that the boys and girls move the lever up and down mechanically, without producing the laborious elastic stroke or jerk so necessary. In order to obviate this difficulty, he proposes the following simple machinery:—A fly-wheel of such weight and dimensions as in other instances is applied to hand movement; this is acted on by another wheel with three teeth on the arm of the sieve, and jigs in the same manner as that practised by hand. He has practically tried this plan, and finds it easier than any other method; not only is less force required, but the jerk is attended. Some care must be taken to observe that the staff of a sufficient specific gravity to bring the ore into the water, and to produce by the arresting teeth of the wheel and the check that jerk which is so essential.

SEPARATING TIN FROM TINNED IRON.—Mr. Alex. Parkes, Birmingham, in order to effect this, treats it with strong sulphuric acid, preferring to use it in a concentrated state, as the stronger the acid the less action on the iron, and the tin will be more readily separated. Heat facilitates the operation. When the tin is separated he takes out the iron and puts in more scrap, until the acid will no longer act on the tin. To obtain the tin from the acid he employs any known method.

METALLIC PACKING BOXES.—Messrs. J. and G. Mead, Bethnal-green, propose to manufacture boxes or cases for packing bullion and other valuables, of sheet iron or other suitable metal. The sheet metal is cut to the required size and folded in one piece, to form the body of the box or case, and the metal is then secured down on one side with a lap joint or rivets; within one or both ends is a metal ring or ring to strengthen the same, and the edges of the metal may be turned outwards, so as to permit the head piece to slide over it by having its edges lapped to correspond thereto, or the heads may have their edges turned upwards, and be inserted in the body to lap inwards. The lap edges may then be hammered down close, and cannot afterwards be opened without detection, it being requisite to force or cut the metal. One or more metal hoops or bands may be passed over the outside of boxes, so constructed, for their further security.

SLIDE-VALVES.—In our last Journal we published a short notice of an improved slide-valve, invented by Mr. Geo. Gimson, of Staley-bridge, Lancashire, and now proposed to be used in the steam engines of the Lancashire and Yorkshire Railway. The valve is constructed in the form of a segment of a circle, and the steam ports are extended so as to correspond therewith. The valve is fixed upon an axle, and a rocking motion is imparted thereto by a lever, connected with the beam in the ordinary manner. The valve is kept home by a spring placed behind it, sufficiently strong to effect that object without causing unnecessary friction against the seating. The action of the steam is also made to assist in diminishing friction. The inventor has had a valve at work for some months, and finds it fully able to accomplish the object claimed.

MORRIS'S RAIL JOINT.—Mr. James Morris has just specified his patent (procured by Mr. Campin, patent agent) for certain improvements in connecting the rails of railways, which he thus describes:—The nature of the said invention consists in providing in the sides or channels, at each end of each rail, or length of rail in a line of rails, a hole or orifice, into which a piece of iron, or other suitable metal, is driven or inserted, which then projects on each side of the rail, and has the ends thereof slotted or bifurcated, or it may simply have an orifice at each end. And when two lengths, each constructed as aforesaid, are brought end to end together to form a line of rails, two screw bolts or bars are placed, one on each side of the rail, in the recesses or slots (or in the substituted orifices) of the two projecting pieces aforesaid, hereafter termed "bearing" pieces, one on each end of each rail or length of rail—that is, longitudinally on each side of the rail in the channels thereof, such screw bolts, bolts, or bars, having each an enlarged part in the middle, and a right-handed thread at one end, and a left-handed thread at the other, on which corresponding screw nuts are placed. Or it may be of any of the other constructions hereafter described, and secured by screw nuts or otherwise, as hereafter described. For better securing the ends of each rail, or length of a line of rails, such rail or length may have a curved or other suitably shaped notch or cut made therein, which, when two ends are brought together, form one complete orifice, into which a corresponding pin is to be inserted, to secure the ends of the rails from moving up and down. The invention is put in operation in the following manner:—Through the rail at the channel, or web, and close to the end, the hole or orifice is provided, into which is inserted the bearing piece, which, when properly constructed and fitted in its place, tightly fits in the said orifice, and projects on each side of the rail, its ends being constructed with deep notches, forming bearing places for the ends of the screw bolt of the first-mentioned kind, which, being at one end threaded with the left-handed screw, and at the other with the right-handed screw, has two screw nuts, one of which is right-handed and the other left-handed, to correspond with the screw on which it is to be used. This screw bolt being placed in the notches, the two screw nuts are tightened against the projecting bearing pieces, by turning the middle part by a wrench or spanner, which causes both nuts to be drawn on to the corresponding threads, and thus the

whole will be so tightly drawn together as to form a secure joint for the rail. When I use a single screw bolt, I have two orifices, instead of the two notches, through the two ends of each bearing piece, and through these the screw bolt is passed, the head having against it a collar, and the lower screw end passing through the bearing piece, and fastened by the screw nut. It is fastened or released by turning the top or head of the bolt. I consider it desirable that India-rubber washers should be inserted between the ends of each rail or length of rail, at the junction, as also between the screw nuts and collars and projecting bearings, to provide for the expansion and contraction of the metal. There is a curved notch at the end of the rail or length of rail, and a pin to be inserted therein, to prevent the ends of the rail from moving up and down. Instead of the foregoing arrangement, I can use bearing pieces with notches or perforations at the ends, in which I insert a plain bolt or bar, secured by nutters or screws, or otherwise. In fixing these fastenings, they are to be supported by an ordinary or any other description of railway chair or sleeper, at each end of them.

TREATMENT OF AURIFEROUS SAND.—Mr. Goulding is now carrying on a series of experiments at the works of Messrs. Leigh and Redpath, Limehouse. The new amalgamator that he employs is a cylinder of about 6 feet in length by 3 feet in diameter. In the inside of this there are a number of revolving fans. A force of water is allowed to pass through the mercury, which is in a chamber attached to the cylinder, which then mixes with the charges. This is agitated; and after some period, by this process the tailings are found perfectly clean. Mr. Goulding states that by his invention not only is all the gold saved, but that, likewise, no mercury will be lost—this fact being a great advantage, a not inconsiderable loss having accrued in all the amalgamating processes yet known. So soon as the experiments are terminated we shall give the results.

SEPARATION OF IRON FROM MANGANESE.—Mr. F. Field, writing from Chili, gives a convenient process for the separation of these metals. It consists in boiling the acid solution with litharge for a few minutes, till all the iron is thrown down, and the liquid becomes colourless. The lead must, however, be separated from the manganese; this may be effected by adding a slight excess of sulphate of soda to the liquid before filtration, and a small quantity of sulphuretted hydrogen to the filtrate. His experiments fully prove the accuracy of the process.

DRILLING AND BORING MACHINES.—Mr. A. P. How, Mark-lane, City, proposes to construct drilling and boring machinery (commonly called ratchet drills) in such manner that the teeth in the ratchet wheel may be acted on alternately by two pauls, which take into the same side of the centre of the ratchet wheel, whereby a continuous rotary motion is imparted to the ratchet wheel and drill stock in which the drill is fixed by a vibratory or oscillating motion given to the stock in which the pauls are joined. The stock is formed or furnished with handles to work it by, it is joined on a pin between the forked end of the main stock in which the ratchet wheel is inserted, this end being prolonged for that purpose; the other end of the main stock forms a handle for holding the machine while at work. The pauls are joined in the stock, one on each side of the forks, but their free ends are brought to bear or take into the ratchet on the same side as the centre; springs are provided for pressing them into the teeth. If necessary, either of the vibrating stock handles may be removed while it is worked by one person.

RAILWAY CHAIRS.—Mr. S. W. Hawks, of the Gateshead Ironworks, proposes to form the chair in two separate side pieces, rolled, forged, or cast to what ever section the shape of the rail may require, one piece fitting on each side of the rail, and a bolt or bolts being passed through suitable holes in the rail and the two side pieces respectively, so as to connect the three thicknesses of metal firmly together. These side pieces are also formed with a foot, or lateral extension, so as to rest on a bottom plate, to which they are firmly secured by a bolt or bolts passed through each such foot, or lateral extension, and the bottom plate into the sleeper or foundation. The bottom plate is rolled with clips or jaws on the outer edge, to confine the chair or combined pieces laterally. The bottom of the rail may rest on the central part of the bottom plate. The side pieces intended to form the chairs may be rolled, forged, or cast of the required form in the cross section, and cut down to suitable lengths, and punched to receive the bolts. At the junction of two ends of the rails by two or more bolts passed through each of such ends, the chair, or combined side pieces, with the bottom plate being bolted down to the sleeper or foundation in the same manner as in the case of the intermediate chair. By this mode of fixing the rails in the chairs, the necessity for the use of "fish pieces" is obviated, as the chair itself splices the rails.

MOTIVE-POWER.—Messrs. C. A. Bourdier and V. Maselon, Trafalgar-square, Charing Cross, propose to obtain motive-power through the agency of water, in combination with a wheel, the spokes or arms whereof are hollow, as also certain parts of the nave of said wheel, which is mounted upon a stud or pin fixed in an upright support, to which is also affixed a disc of metal, the face whereof is ground and fitted close to that face or side of the nave of the wheel with which it is connected. The aforesaid fixed face has one hole or opening formed therein, into which is inserted a pipe connected with a reservoir of water. And the aforesaid face of the nave of the wheel, which is hollow, has many holes or openings formed therein as there are spokes in the wheel, the said holes being made opposite to the said spokes. The outer ends of each of the aforesaid spokes are open, and have a cup-shaped piece of metal affixed thereto, into which the water passes from the reservoir, and thus imparts motion to the wheel, and so on, as each of the openings in the nave are brought opposite to the opening in the before-mentioned fixed disc. This invention consists, secondly, in applying the above mode of obtaining motive-power to the construction of water meters for measuring and indicating the quantity of water supplied for domestic and other uses, said mechanism being connected with an ordinary clockwork movement for registering and indicating the quantity which has passed through the meter in a given time.

PROTECTING THE SHEATHING OF SHIPS.—A limited liability company has been established for the purpose of working certain patent methods of protecting the sheathing of ships. These methods are said to have been practically tested for some time past with excellent results, and a large quantity of copper prepared by the company's process is now in whole or in part applied to several of H. M.'s ships. The chief of the patents possessed by the company appears to be those of Mr. Wall, who bases his invention upon the principle established by Sir H. Davy's experiments in connection with this subject. It has remained for him, he says, to resume those experiments, and protect the copper by making it positive instead of negative. This has been done by amalgamating the surface of the copper or yellow metal with a small portion of mercury, by which the whole surface of the copper is reduced to an uniform condition, preventing the difference between one spot and another which would constitute a voltaic current; and just as amalgamated zinc may remain immersed in weak acid, and undergo a very slow and steady oxidation (so slow that it amounts literally to protection), in like manner the copper is protected from any rapid oxidation; and, according to Mr. Wall's practice, copper or other metals used as ships' sheathing which under ordinary circumstances would be destroyed in any one year—would last three or four years when protected by this process; the saving of copper being as between three and four to one. A method of coating ships, the saving of some time past with excellent results, and a large quantity of copper prepared by the company's process is now in whole or in part applied to several of H. M.'s ships. 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**LACKAMORE NEW MINING COMPANY (LIMITED).**

Capital £5000, in 5000 shares of £5 each.  
 2d per share to be paid on allotment, the remainder by instalments of 10s. each, as required.  
 To be Incorporated and Registered under the Joint-Stock Companies Act, 1856, and Liability limited to amount of subscription.  
 MANAGING DIRECTORS.—Messrs. John Taylor and Sons.  
 Three other directors and two auditors to be appointed by the shareholders at the first general meeting.  
 SECRETARY.—Mr. W. Vernon Venables.

OFFICE.—6, QUEEN STREET PLACE, UPPER THAMES STREET, LONDON.

This company is formed under the Joint-Stock Companies Act, 1856, with limited liability, for the purpose of working the Lackamore Copper Mine in Ireland.  
 The mine, leases, buildings, machinery, materials, and ore broken, with everything in and upon the premises, were sold under an order of the Court of Chancery on the 24 April last, and were purchased by Messrs. John Taylor and Sons for £300.  
 The lease has upwards of 15 years to run, subject to the moderate royalty of 1-10th of the value of the ore sold.

The mine is well situated. It is in the county of Tipperary, about 15 miles from the Fort of Limerick, and four miles from the town of Newport, to both of which places there is an excellent road. The mine has been worked to a depth of 50 fms. below the adit level, and yielded considerable quantities of rich copper ore, the sales at Swansea from 1837 to 1850 showing that 3780 tons were sold for £32,400, and that the average produce was 10½ per cent. of fine copper. A fine stream of water runs through the mine, and a powerful water-wheel has recently been erected, for the purpose of draining the deepest workings. There is a good shaft, with a capstan, shears, and suitable pump work; also, an office and workshop, and houses for the agents. Operations having been resumed, sales of copper ore may be commenced at an early date, and sanguine expectations are entertained that the mine will soon leave a profit over the working expenses.

The liability of the shareholders is limited to the amount of £2 per share; the capital remaining, after paying £300 for the lease and plant, being deemed sufficient for carrying out the objects of the company.

Applications for the remaining shares to be made on or before the 15th day of Oct. inst., to Messrs. JOHN TAYLOR and SONS, No. 6, Queen-street-place, Upper Thames-street, London, E.C.

**MINERALOGY.—KING'S COLLEGE, LONDON.**

Prof. TENNANT, F.R.S., will COMMENCE a COURSE OF LECTURES on MINERALOGY, with a view to facilitate the study of Geology, and of the Application of Mineral Substances in the Arts. The lectures will be illustrated by an extensive collection of upwards of 3000 specimens, and will begin on Friday morning, 9th October, at Nine o'clock. They will be continued on each succeeding Wednesday and Friday at the same hour. Fee, £2 2s.

R. W. JELF, D.D., Principal.

**SOUTH WALES.—Mr. ARTHUR O. DAVIES, of Dowlais,**

is authorised to TREAT for the SALE of TWO VERY VALUABLE GOING COLLIERIES in South Wales.

Also, TO LET, an EXTENSIVE TRACT of STEAM COAL, on a long lease, at a moderate royalty, with a railway running through the property.

For terms, apply as above.

**VALUABLE ANTHRACITE COAL.—TO BE LET,**

under the farms called Lladrog Mawr, Lladrog Fach, Ty Canol, Branwathaw, Celdir, and Wern, the following valuable SEAMS OF COAL, or some of them may be worked under these properties:—The Wain Ffynnon, the Drap, Graig, Green, Big Seam, Yard, and Two Feet Seam, varying from 3 to 9 ft. thick. The situation of these farms with reference to the Gwendraeth Canal and the South Wales Railway, affords an easy communication to the ports of Pembrey and Kidwelly, as well as to the interior of England.—For further particulars, apply to Messrs. WHITE, BARNWORTH, and WHITE, solicitors, 12, Great Marlborough-street, W., London; Mr. GEORGE GOODE, Carmarthen; Mr. W. P. BRUCE, C.E., Swansea.

**MINERAL DISCOVERY, AND TO LET.—This month a LARGE**

MASS OF DECAYED SPATHOSE ORE has been FOUND, close on the shore, easily wrought and shipped. The deposit is very large,—100 to 120 ft. wide,—and extends, as seen, to a mile inland. The slag of what has been smelted (supposed by the Romans or Danes) lies in large quantities contiguous. This deposit is distinct from the copper and other ores advertised in this Journal of 5th September, which are still to let.—Apply to the proprietor, W. FOSKOV, of Erina, Loch Fyne, Argyllshire.

**BUTE MERTHYR STEAM COAL ASSOCIATION (LIMITED).**

The Directors have the satisfaction to announce that they have this day RECEIVED the OFFICIAL NOTIFICATION from the Department of the Store-keeper-General of the Navy, that the BUTE MERTHYR STEAM COAL has been ADDED to the LIST of COALS included in the NAVAL CONTRACTS.

WILLIAM EMSON, Managing Director.

Offices, 4½, Warrford-court, Oct. 1, 1857.

**CLARENDON CONSOLIDATED MINING COMPANY OF**

JAMAICA (LIMITED).—Notice is hereby given, that the Directors of the Clarendon Consolidated Mining Company of Jamaica (Limited) have this day made a CALL of TWO SHILLINGS AND SIXPENCE per share on the shares of the company, payable on or before the 31st day of October next, at the bankers of the company, Messrs. Haywood, Kennard, and Co., No. 1, Lombard-street, London, and the shareholders are hereby required to pay the same accordingly.

By order of the Board, JOHN H. KOCH, Sec.

187, Gresham House, Old Broad-street, London, July 28, 1857.

**THE LONDON AND VIRGINIA GOLD AND COPPER**

MINING COMPANY.—Notice is hereby given, that an EXTRAORDINARY GENERAL MEETING of the stockholders of this company will be HELD at the office of the company, 34, Lime-street, in the City of London, on Thursday, the 29th day of October next, at One o'clock in the afternoon precisely, to assent to the registration of the company as a company limited as to the liability of the shareholders to the amount of the unpaid calls on their shares, and to change the name of the company by adding thereto the word "Limited," and to pass all such other resolutions, and transact all such other business as shall be necessary to comply with the provisions of the Joint-Stock Companies Act, 1856 and 1857, in respect of the registration of companies under these Acts, with limited liability.

By order of the Board of Directors, JOHN ANDERSON, Sec.

34, Lime-street, London, Sept. 26, 1857.

**LIBERTY MINING COMPANY OF VIRGINIA.—At a MEETING**

of this company, held at the London Tavern, Bishopsgate-street, on Tuesday, the 29th inst., the following resolutions were passed unanimously:—

1. That this meeting having heard the statement of Mr. Conquest, hereby authorises the directors to take such steps for providing £2000 for the purposes of the mine as they may deem requisite or expedient, and for that purpose to issue as many additional preference shares of £1 each, at 10s. per share, as may be subscribed for, or as they may be able to dispose of at that rate; and that in case of the sale of the mine and property of the company, in pursuance of any resolution of a special meeting of shareholders to that effect, the money subscribed for such preference shares, and for all preference shares already issued, shall be refundable out of the sum realised by the sale of the said mine and property, after all legal and equitable debts shall have been discharged.

2. That all holders of the original scrip shares of the old company who have not yet sent them to the office to be exchanged for shares in the present company, at the rate of one share for every five scrip shares, the holder taking at the rate of five per cent. thereon in preference shares, and who shall not do so within 21 days from this day, shall be deemed to have forfeited the same.

3. That the thanks of this meeting be given to Mr. Conquest for his statement and explanations, and for his unremitting exertions to promote the best interests of the company.

By order of the Board, H. H. ROOD, Sec.

Company's Office, 62, Moorgate-street.

**THE GREAT BARRIER LAND, HARBOUR, AND MINING**

COMPANY (LIMITED).—In 10,000 shares, of £5 each.

Deposit, 10s. per share at the time of application, and 20s. per share upon allotment.

Prospectuses can be obtained at the office, No. 117, Bishopsgate-street Within, London.

J. H. MURCHISON, Sec.

**TREDINNICK'S LIST OF PRICES OF BRITISH MINES.**

RAILWAYS, BANKS, &c., published weekly, and forwarded by post at charge of £1 1s. annually. Fluctuations in market value faithfully recorded, with Comments on the progress of Dividend and sound Progressive Mines.

Gresham House, Old Broad-street, London.

**INVESTMENT.—Messrs. FULLER and CO., 51, THREAD-**

NEEDLE STREET, LONDON, continue to TRANSACT BUSINESS in BANKING, MINING, RAILWAY, and OTHER SECURITIES, many of which will safely pay from 15 to 25 per cent. Those of a progressive character frequently rising above 100 per cent.

WANTED.—Alfred Consols, Bolebrook, Dolcoath, Hingston Down, North Rokear, South Canadon, Wheel Margery, Edward, Ludcott, Tethy.

Since calling public attention to twelve progressive mines, a rise has taken place of the following:—Craddock Moor, from £35 to £45, equal to £10,500; Calstock Consols, £34 to £44, or £2048; East Russell, from 10s. to £2, or £6900; Wb. Edward, £1 to £8, being an increase in value of £16,000; Swanpool, £1 to £2½, or £3700; Total increase of value in three months of £37,598.

The following shares present equally as good prospects of success, and worth immediate attention:—

Devon Barra Barra. Tokenbury Consols. Great Wheel Easy.

Bolling Well. Dale (Limited). Drake Walls.

North Wheel Wrey. South Gb (Limited). West Wheel Edward.

Barl. East Providence. Whitechurch Down Cons.

Every information given, either personally or by letter.

P.S. PLUMBAGO.—FOR SALE, 5 tons of PURE CUMBERLAND LEAD, samples of which may be seen at this office.

**UNITED STATES OF AMERICA.—DUPEE, PERKINS,**

and SAYLER, BOSTON, MASSACHUSETTS, BROKERS for the PURCHASE and SALE of STATE, CITY, and RAILROAD SECURITIES, MANUFACTURING and BANK SHARES, give particular attention to the MINING COMPANIES OF LAKE SUPERIOR, and furnish reliable information concerning them.

[DUPEE, PERKINS, and SAYLER refer to the Editor of the Mining Journal.]

**MECHANICAL DRAWINGS, FOR PATENTS AND OTHER**

PURPOSES.—BARLOW and CO. continue to PREPARE DRAWINGS of all kinds of MACHINERY, for the SPECIFICATION of PATENTS and GENERAL USE. They also send a Circular of Information on Patents free by post on receipt of a stamped envelope. Cost of provisional protection for an invention, £3 18s. The Patent Journal, edited by them from 1846, in numbers and volumes.

BARLOW AND CO., Office for Patents, 89, Chancery-lane, W.C.

**NEW PATENT ACT, 1852.—Mr. CAMPIN, having advocated**

the Patent Law Reform before the Government and Legislature, and in the pages of the Mining Journal, &c., is now READY to ADVISE and ASSIST INVENTORS in OBTAINING PATENTS, &c., under the NEW ACT.

The Circular of Information, gratis, on application to the Patent Office and Design Registry, 154, Strand.

**In the Court of Vice-Chancery of the High Court.—Stannaries of Cornwall.**

GUMMOE v. POTT AND ANOTHER (Assignees, &c.), AND OTHERS.  
 IN RE GREAT DOWAGS UNITED MINES.  
 HIGGS v. GREGORY AND OTHERS.  
 IN RE NORTH LEVANT MINE.

NOTICE IS HEREBY GIVEN, that, pursuant to the several ORDERS, or DECREES, made in the above-mentioned Causes, and bearing date respectively the 5th day of August, 1857, a PUBLIC AUCTION will be HELD at the Registrar's Office, Truro, on Wednesday, the 14th day of October next, at Twelve o'clock at noon, for SELLING 375 (three hundred and seventy-five) PARTS, or SHARES, of the Defendants James Stansall Pott and James Campbell Bowley (as assignees of the estate and effects of Britton Richardson, a bankrupt; 50 (fifty) PARTS, or SHARES, of the Defendants Mary Jewson and John Joseph Edwards (as executor and executor of the last will of John Jewson, deceased); and 10 (ten) PARTS, or SHARES, of the Defendant W. C. Morgan, respectively; and of and in the said GREAT DOWAGS UNITED MINES; and 5 (five) PARTS, or SHARES, of the Defendant Robery Gregory; and 10 (ten) PARTS, or SHARES, of the Defendant K. Simons, respectively; and in the said NORTH LEVANT MINE; or as many of the said several shares, respectively, as may be necessary to satisfy the said Orders, or DECREES, obtained against them respectively; and of and in the ORES, HALVANS, ENGINES, MACHINERY, MATERIALS, and OTHER EFFECTS, upon and belonging to the said MINES respectively.—For further information, application may be made to Mr. R. W. CHILDS, plaintiffs' solicitor, 23, Coleman-street, London; or to Mr. ROBERTS, solicitor, Truro. Dated Registrar's Office, Truro, Sept. 30, 1857.

**HIGHLY IMPORTANT SALE OF NEW AND VALUABLE HORIZONTAL**

HIGH-PRESSURE STEAM-ENGINES.

AT MESSRS. R. AND J. COUPE'S CLAYTON FOUNDRY, WIGAN.

MR. JNO. LAMB has pleasure in announcing to miners, manufacturers, bleacheries, contractors, and others, that he has received positive instructions from the proprietors to SELL, BY PUBLIC AUCTION, on Thursday, the 8th of October, at One o'clock, prompt, at the above premises, the following truly valuable STEAM-ENGINES, viz.:

ONE of 30-horse power, polished. TWO of 12-horse power, black.  
 TWO of 12-horse power, polished. ONE of 22-horse power, black.  
 All the engines are fitted with wrought scrap iron cross-heads and shafts, with pumps and fly-wheels, complete.

As these engines have been thrown on the makers' hands through the inability of one of their customers to meet his credit, they will be sold without the slightest reservation.—May be viewed any day previous to the sale.

**SOUTH STAFFORDSHIRE.**

TO IRONMASTERS, COAL MASTERS, CAPITALISTS, AND OTHERS.

VERY VALUABLE THICK COAL AND IRONSTONE MINES.

BRETTELL LANE, KINGSWINFORD.

**MESSRS. OATES AND PERRENS have been honoured with in-**

structions from Messrs. Wheeley to OFFER FOR SALE, BY AUCTION, on Monday, the 16th day of November, 1857, at Five o'clock in the afternoon, at the Talbot Hotel, Stourbridge (unless an acceptable offer be previously made by private contract, of which due notice will be given), in the following, or such other lots as shall be determined by the vendor, and subject to conditions that to be produced, the entire of that exceeding 5000 and most desirable MINERAL ESTATE, called or known as the HAWBURY ESTATE, situate at Brettell-lane, in the parish of Kingswinford, in the county of Stafford, and containing similar valuable MINES OF THICK or TEN YARD COAL, BROOCH COAL, IRONSTONE, &c., to those found in the adjoining collieries, headings from which have been driven under the estate to the extent of about 400 yards, as shown on the annexed plan; these fully prove the existence thereunder of the extremely valuable mineral strata of the surrounding highly prolific district, and may be made available for the future working of the mines.

There is an excellent MINE OF SUBSIDIARY CLAY, in the parish, and a capital MANAGER'S HOUSE and house adjoining, FARM-HOUSE and OUT-BUILDINGS, together with TWO COTTAGES and GARDENS, and a considerable portion of the estate may, with advantage, be offered for building purposes; the whole contains by measurement 34A. 1A. 33P.

Particulars and plans of which are herewith given, and may be had at the offices of the Midland Counties Herald, Aris' Gazette and Journal office, Birmingham; the Chronicle office, Wolverhampton; and the Mining Journal office, London; at the place of sale; and the principal inn in the neighbourhood; at Messrs. WHEELEY and CO., solicitors, in Birmingham, or of the solicitor or auctioneer, Messrs. WHEELEY and CO., who will appoint a person to show the estate, upon application to the offices aforesaid; and for further information, apply to Mr. HARWARD, solicitor, or the auctioneers, both of Stourbridge.

**PARTICULARS.**

No. on plan.	Description.	Cultivation.	Quantity.
1.	Barrow's close, and two houses and gardens ...	Pasture	3A. 2A. 34P.
2.	Yew-tree piece ...	Arable	3 2 9
3.	Cockshut ...	Arable	1 3 30
4.	Hanging piece ...	Arable	2 2 31
5.	Tree piece ...	Arable	5 3 14
6.	Rough in ditto ...	Wood	0 3 11
7.	Withy bed ...	Oats	0 3 6
8.	Pool piece ...	Arable	1 3 28
9.	Pool and garden ...	Wood	0 3 31
10.	Upper sling and road ...	Oats	1 0 7
11.	Lower house piece ...	Pasture	2 3 0
12.	Square piece ...	Arable	3 1 27
13.	Rough in ditto ...	Withies	0 0 14
14.	Upper house piece ...	Pasture	2 1 34
15.	Sling ...	Pasture	1 1 8
16.	Barn, stables, cowhouses, pigsties, granary, &c. ...		0 3 15
17.	Road and wall ...		0 0 9
18.	Two houses and gardens ...		0 1 35
19.	Hawthorn house and garden ...		0 0 34
20.	Gardens ...		0 0 24
	Half the adjoining turnpike road ...		0 3 7
	Total ...		34A. 1A. 33P.

The surface is proposed to be offered with the mines, upon such terms as may be agreed upon at the time of sale; the buildings are in substantial repair, and there are residences for a manager and clerk. The auctioneers beg particularly to call the attention of capitalists, &c., to this most desirable property, which is situate near Brettell-lane turnpike gate, and adjoins the Stourbridge and Dudley turnpike-road, to which it has an excellent frontage; is within 1½ mile of Stourbridge, 3¼ from Dudley, one mile from the important neighbourhood of Wordsley and the glass manufacturing districts, close on the verge of the iron district, where at this time coal is becoming extremely scarce, and seven miles only from Kidderminster, to which districts it will offer the advantage of the nearest canal, the demand extending from 800 to 1000 tons weekly upon an average. It is within one-third of a mile from the Brettell-lane Station of the Oxford, Worcester, and Wolverhampton Railway, and a less distance from the Stourbridge Canal; in short, it affords to an enterprising speculator a ready and certain means of realising an ample fortune in a very limited period.

**CAPITAL MACHINERY, STEAM-ENGINES, STEAM BOILERS, TOOLS, &c.,**

WELL ADAPTED FOR RAILWAY ENGINEERS.

**MESSRS. T. M. FISHER and SON WILL SELL, BY AUCTION,**

on Wednesday, the 14th day of October, 1857, and following days, on the premises late in the occupation of Messrs. Dunn, Hattersley, and Co., the Windsor Bridge Works, Farnley, the following valuable MACHINERY, TOOLS, STOCK, and UTENSILS, comprising DUNN'S PATENT RETORT HIGH-PRESSURE STEAM BOILER; vertical high-pressure ditto, 10-horse power; ditto, 8-horse, and ditto, 6-horse power; six high-pressure steam-engines, from 5 to 12-horse power; 7 in. and 8½ in. single speed lathes; two 10 in. ditto, and one 9 in. ditto, on bed 15 ft. long, with break; two 8 in. double-gear hand lathes, one 9 in. ditto, two 10½ in. ditto, three 11 in. ditto, three 12 in. ditto, three 13½ in. ditto, and one 14 in. ditto, all with feed-screws, rests, and driving apparatus; one 1 in. double-gear slide lathe, bed 13 ft. long, on 11 in. slide and screw; one 12 in. double-gear slide lathe, bed 13 ft. long, on 11 in. slide and screw; one 13½ in. ditto, bed 15 ft. long; one 24 in. ditto, bed 30 ft. long; and one 34 in. ditto, bed 30 ft. long, with break to take in 5 ft. diameter, with face-plates, compound slide rests, hand rests, stays, chucks, and driving apparatus; planing machine, bed 28 ft. 6 in. long; ditto ditto, 26 ft. long; ditto ditto, 20 ft. 6 in. long; and ditto ditto, 6 ft. long; self-acting in the vertical, angular and horizontal cuts; three double vertical boring machines, with self-acting motion to spindles, and double power gearing; horizontal boring machine, with 1 in. double gear headstock, and ditto with 1½ in. ditto, 10 ft. bed; eight vertical and one horizontal drilling machines; with double power gearing; two slotting machines to take in 2 ft. 6 in. diameter, and cut 6 in. deep; and one large ditto, to take in 5 ft. diameter, and cut 1 ft. 6 in. deep, with compound and circular table and self-acting motion; shaping machine, 4 ft. bed, 10 in. stroke; ditto, 5 ft. bed, 12 in. stroke; shaping and planing machine, and double shaping machine, bed 20 ft. 4 in. long, 1 ft. 6 in. stroke, self-acting in all the cuts, two heads with separate motion and catch box to discharge either head, and two moveable tables for cutting longitudinally; screwing machine, with taps and dies, from ½ in. to 2 in. diameter; wheel-cutting engine, to take in 3 ft. diameter; powerful sawing and punching machine, by Lewis; lever punching machine; shearing machine, to cut centre of plate, 40 in. wide; plate-bending machine, with three rollers, each 12 in. diameter, 9 ft. 3 in. wide; rivet-heating furnace, four portable rivet hearths, each with pair of circular bellows; Garforth's patent riveting machine, and wood tower for same, with double purchase 10 tons crab; pair of 3-shave blocks and chain; furnace for heating long bars and plates; pair of 3 and 4 shave blocks for 30 tons; six 10 tons and twelve 5 tons snatch blocks; universal travelling crane, with 10 tons treble-purchase tabular crab, two ditto, with double-purchase crabs, and two ditto, with single-purchase crabs, all with ratchet, chain, blocks, and pulleys; two single-purchase and two double-purchase crabs; a 10 ton crane, with jib, spur, and carriage; a 10 tons crab crane; wrought-iron crane jib, and spurs; vice and fillet benches; 37 vices, from 5 in. to 6½ in. jaws; seven parallel vices, from 6 in. to 7½ in. jaws; cast-iron portable vice bench, with eight drawers, and 6 in. vice; tool boxes; turning, filing, and boring tools, files, 16 smiths' hammers, with iron, cast-iron, and anvil, swage blocks, smiths' tools, Schiele's 33 in. patent fan, three smiths' cranes, six cast-iron hoods, and four systems for smiths' hearths; three cast and wrought-iron mandrel racks, two varying plates, 20 tons steel-yard; 5 tons ditto; four 6 in. water cranes, each with brass valve, swan neck, balance bowl, stove, grate, and gearing for opening the valve from the tender; three 6 in. water cranes, each with brass valve, swan neck, balance bowl, and gearing for opening the valve on the ground; six 3 tons treble-purchase warehouse cranes, four pair of shear legs, Bodmer's pumping engine, hydraulic press, 9 in. ram; portable rail bending machine, on four wheels; three screw jacks; two rack jacks, indicating lever and testing chain, three bending bowls, two hoop mandrels, three face-plates, Dunn's patent wrought-iron main road turntable, 18 ft. 6 in. diameter; ditto ditto beam ditto, 18 ft. 6 in. diameter; ditto ditto, 40 ft. diameter, with gearing for turning; wrought-iron curb, foundation rings and chairs; and surface turntable, 13 ft. diameter, all for 4 ft. 6 in. gauge; two patent cast-iron hopper, traversers, 10 ft. long, 4 ft. 8½ in. gauge; eight pairs of wheels for railways, 4 ft. 8½ in. gauge; Banks's patent brick, old, well seasoned cut fuel, four logs of sound pine timber, castings, ladders, trucks, bogies, four carts, boiler carriage, lorry, wagon, timber bolter, grey horse, set of shaft gears, counting-house and storeroom fixtures, &c.

Catalogues will be published on the 7th of October, and with any further required particulars, may be had from the auctioneer, 18, Tib-lane; or from Mr. WILLIAM BACCHUS, accountant, Norfolk-street, Manchester.

**IMPORTANT AND EXTENSIVE SALE OF HORSES, &c., AT THE STABLE**

BLOCKWICH BRIDGE, NEAR WALSH.

TO RAILWAY CONTRACTORS, HORSE DEALERS, COAL AND IRONMASTERS, AND OTHERS.

MR. H. FARRINGTON respectfully announces that he has received instructions from Mr. Pigott (who has finished his contract on the Chester and Norton branches of the South Staffordshire Railway) to OFFER, BY PUBLIC AUCTION, at the railway stables, Blockwich-bridge, within one mile of Walsall, on Tuesday, October 6th, 1857, FIFTY SUPERIOR YOUNG AND WELL-BRED HORSES, MARE, five years old, 15½ hands, very steady in harness; capital COB HORSE, 14 hands.

Sale to commence at Eleven for Twelve o'clock, under the usual conditions. The auctioneer begs to call the attention of dealers and others to this important and genuine sale, as the horses are mostly young, and in excellent working condition, and will be sold by the proprietor without reserve, he having no further use for them. Also will be OFFERED, at a FUTURE SALE, about 300 tons of WROUGHT-IRON RAILS (40 lbs. to the yard), 3000 EARTH WAGONS, CARTS, BARROWS, FLAKES, STABLES, SHEDS, &c., due notice of which sale will be given in a future advertisement.

The stables are situate near the Mill, one mile from Walsall, on the Blockwich-bridge, and suitable accommodation will be provided for any gentleman driving or riding to the sale.—Auctioneer's office, Bridge-street, Walsall.

**BODMIN.—TO MINE AGENTS, BUILDERS, AND OTHERS.**

MR. C. E. PEARSE, Auctioneer and Surveyor, Bodmin, WILL

SELL, BY AUCTION, on Thursday, the 8th of October, 1857, at Two o'clock in the afternoon, at the Bodmin, 3000 ft. of NORWAY or RED FINE RAIL, 350 ft. of RED RATTENS, all of superior quality and strength, the same being the property of Messrs. Eves and Son, contractors and builders of the Gilbert Monument.

**BRIERLEY, STAFFORDSHIRE.—VALUABLE MINING PROPERTY.**

MR. THOMAS NOOK WILL LET, UPON LEASE (with the

sanction and authority of the Charity Commissioners for England and Wales) BY AUCTION, at the Swan Hotel, in Wolverhampton, on Wednesday, the 10th of October, 1857, between the hours of Four and Six o'clock in the afternoon, subject to conditions to be then produced, ALL that FARM and LANDS situate in the township of Briarley, in the parish of Sedgley, in the county of Stafford, with the DWELLING HOUSES and BUILDINGS thereon erected, and now in the occupation of Mr. James Evans, containing, by a recent survey and measurement, 17A. 1A. 30P. of about 100 acres, for the term of 31 years, at the yearly rent of £51 as a surface rent, payable half-yearly during the said term; and also ALL the UNGOTTEN MINES OF COAL, IRONSTONE, LIMESTONE, CLAY, and all other MINES and MINERALS lying and being in and under the said premises, with full power to get and dispose of the same, for the said term of 31 years.

The minerals under the estate immediately adjoining to the above property are now being extensively worked by Mr. H. B. Whitehouse and others, and are of first rate quality.—Further information may be obtained from Messrs. FORRIS and GOSNOLD, solicitors, Bridgnorth and Broseley.

**PENZANCE, CORNWALL.**

IMPORTANT AND EXTENSIVE MANUFACTURING PREMISES,

Held at a ground rent; bounded by the sea wall; in the occupation of the London and Penzance Serpentine Company; also,

THE VALUABLE PLANT AND MACHINERY, THE STOCK IN TRADE, AND THE LEASES OF SIX QUARRIES.

**MR. BOYES has been instructed by the Official Liquidator (appointed**

by the Court of Chancery to wind-up the above company) to SELL, BY AUCTION, at Garraway's Coffee House, London, on Wednesday, the 11th of October (instead of the 30th September, as previously advertised), at Twelve o'clock, the above valuable PROPERTY.

The PREMISES are extensive, and have been built with stone during the last few years in the most complete and substantial manner, at a cost of several thousands of pounds. They contain a noble show room, factory, masons' and turners' shops, fishing, engine, and store-rooms, smithy, boiler-house, large shed, yard, &c. A desirable PLOT of BUILDING LAND, having a frontage of about 400 ft.

The MACHINERY is of the best description, and in excellent working condition, and will be sold with the lease. It consists of two high-pressure steam-engines, eleven turning lathes, expensive sawing frames, &c.

The purchaser of the lease and plant will have the option of taking the stone serpentine and Silurian marble, consisting chiefly of chimney-pieces, at Penzance and London, or either, at a fair valuation. To any party desirous of engaging in this business, a most desirable opportunity is hereby offered; but the premises, from their extent and eligible situation, and from their possessing every modern improvement, offer unusual advantages for many other manufacturing purposes.



**PREVENT SMOKE AND INCREASE STEAM.—**  
PATENT REGULATING AIR-DOOR, FOR MARINE AND STATIONARY  
STEAM-BOILERS, AND FOR LOCOMOTIVE AND OTHER FURNACES.

CERTIFICATE FROM SIR ANTHONY ROTHSCHILD.  
London, July 25, 1857.—The action of your Patenting Air-Door at the Royal Mint  
Gold and Silver Refinery is very satisfactory as regards the smoke. They also get up  
steam in the boilers quicker and maintain it better than before; and they afford the  
means of raising or lowering the heat in the refinery furnaces as the work may re-  
quire. Your invention, in fact, deserves every encouragement and recommendation.  
J. Lee Stevens, Esq., 1, Fish-street-hill. Signed, A. ROTHSCHILD.

For further particulars respecting the Patenting Air-Door, and the Patent  
Safety Marine Boiler, and with reference, also, to his Patent Land Furnaces, Domestic  
Stoves, and other inventions comprised in his System of Smoke Prevention, apply to  
Mr. JOHN LEE STEVENS, 1, Fish-street-hill, City, London (E.C.), where a great  
variety of models and drawings may be seen, and reports and testimonials obtained.

**OVERLAND ROUTE.—STEAM TO INDIA AND CHINA, &c.**  
VIA EGYPT.—THE PENINSULAR AND ORIENTAL STEAM NAVIGATION  
COMPANY BOOK PASSENGERS AND RECEIVE GOODS AND PARCELS FOR THE  
MEDITERRANEAN, EGYPT, ADEN, BOMBAY, CEYLON, MADRAS, CAL-  
CUTTA, THE STRAITS, AND CHINA, by their steamers leaving Southampton on the  
4th and 20th of every month.  
For further particulars, apply at the company's offices, No. 122, Leadenhall-street,  
London; and Oriental-place, Southampton.

**CHEMICAL LABORATORY AND ASSAY OFFICE,**  
1, OXFORD COURT, CANNON STREET, LONDON, E.C.  
Mr. R. V. TUNON, F.C.S., F.S.A. (late Demonstrator of Chemistry at St. Bartho-  
lomew's Hospital), may be CONSULTED on all SUBJECTS involving CHEMICAL  
PRINCIPLES; and is prepared to EXECUTE all kinds of METALLURGICAL,  
AGRICULTURAL, COMMERCIAL, and other ANALYSES.  
Mr. Tunon has a vacancy for a pupil.

**ASSAY OFFICE AND LABORATORIES,**  
DUNNING'S ALLEY, BISHOPSGATE STREET WITHOUT, LONDON.  
Conducted by JOHN MITCHELL, F.C.S., Author of "Manual of Practical Assaying,"  
Metallurgical Papers, &c.  
Assays and Analyses of every description performed as usual. Special Instruction  
in Assaying and Analysis. Consultations in every branch of Metallurgical and Ma-  
nufacturing Chemistry. Assistance rendered to intending Patentees, &c.  
For amount of fees, apply to the office, as above.

**MESSRS. R. & J. COUPE, ENGINEERS AND IRONFOUNDERS,**  
MANUFACTURERS OF HORIZONTAL HIGH-PRESSURE STEAM-EN-  
GINES, from 10 to 200-horse power; the larger description of engines mounted with  
improved equilibrium slide piston valves, which has proved itself so emi-  
nently adapted for winding and other engines.

**TO IRONMASTERS, ENGINEERS, AND FOUNDERS.—**  
THE HARRINGTON IRON COMPANY are now PREPARED TO SUPPLY  
CASTING AND FORGE IRON, made from the rich HEMATITE IRON ORES  
of CUMBERLAND.—Address, HARRINGTON IRON COMPANY, Cumberland.

**TO IRONMASTERS.—MR. W. OAKES, FURNACE MANAGER,**  
STOCKTON-ON-TEES, DURHAM, has taken out a PATENT for an IM-  
PROVED CONSTRUCTION OF BLAST FURNACES, being the formation of a GAS  
TOP, for the purpose of conveying the gas from the furnace to the boilers and heat-  
ing stoves, which a very large saving is effected in the consumption of fuel, and  
the labour of stoking diminished.

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## THE MINING SHARE LIST.

Shares.	Mines.	Paid.	Last Price.	Present.	Dividends per Share.	Last Paid.	Shares.	Mines.	Paid.	Last Price.	Present.	Dividends per Share.	Last Paid.
1120	Alfred Consols (cop.), Phyllis* [S.E.]	21	11s. 10d.	£13	13% 14	£17 13 8	20	8000	East Cornwall Cons. (tin & op.)	24	10	2 1/2	8
1124	Balteswidden (tin), St. Just	11 1/2	4	12 1/2	50	0	0	8000	East Fowey Consols	10	10	0	0
1128	Bedford United (copper), Tavistock	21	10s. 4d.	10	6 1/2	11 1/2	0	8000	East Frowen	10	10	0	0
1132	Boscon (tin), St. Just	20 1/2	100	105	10	0	0	8000	East Gossams (copper)	10	10	0	0
1136	Bottallack (tin), St. Just	20 1/2	100	105	10	0	0	8000	East Liskeard (S.E. Bed.)	24	10	2 1/2	8
1140	Brighdale and Frognatt Grove, Derbyshire	3	4	4 1/2	4 1/2	4 1/2	0	8000	East Liskeard (copper), Crowan	24	10	2 1/2	8
1144	Bryndall Hall (lead), Flint	20	40	70 80	13 00	0	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1148	Bryndall, Llanidloes, Montgomeryshire	20	40	70 80	13 00	0	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1152	Budnick Consols (tin), Perran	20	40	70 80	13 00	0	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1156	Bwch (silver-lead), Cardiganshire	31	1s. 6d.	1	0	0	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1160	Carn Brea (copper, tin), Illogan	15	45	40 50	235 100	2	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1164	Carnyorth (tin), St. Just	15	45	40 50	235 100	2	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1168	Cefn Cwm Brynno (lead), Cardiganshire	33	55	45	3 00	0	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1172	Collaombe (copper)	5	25	23 25	2 17 0	0	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1176	Crookdown (copper, tin), Camborne [S.E.]	20	110	100 110	85 00	2	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1180	Craddock Moor (copper), St. Claz	8	45	45	0 00	0	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1184	Craven Moor, Llanidloes (lead), Yorkshire	6	140	130	95 00	8	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1188	Crynwystwith (lead), Cardiganshire	300	150	150	122 00	10	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1192	Dewon Mines (silver-lead), Durham	400	150	150	122 00	10	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1196	Devon Great Consols (cop.), Tavistock [S.E.]	1	400	400 470	557 00	9	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1200	Ding Dong (tin), Gwilt	33	25	20 22 1/2	16 7 1/2	1	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1204	Dolohat (copper, tin), Camborne	257 1/2	310	310 320	83 00	8	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1208	Drake Walls (tin, copper), Calstock	17 1/2	2 1/2	2 1/2	0 13 6	0	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1212	East Daren (lead), Cardiganshire	32	100	100	30 00	3	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1216	East Falmouth (lead)	2	2 1/2	2 1/2	0 2 6	0	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1220	East Pool (tin, copper), Pool, Illogan	24 1/2	340	340	200 00	2	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1224	East Wheal Margaret (tin, copper)	7 1/2	10	10 11	0 5 0	0	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1228	Exmouth (silver-lead)	41 1/2	14s.	14	1 0 0	0	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1232	Eym Mining Company (lead), Derbyshire	5	60	59 61	14 1/2 4	1	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1236	Fowey Consols (copper), Tywardreath	3	7	7	41 4 3	0	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1240	General Mining Co. for Ireland (cop., lead)	4	2 1/2	2 1/2	1 0 0	0	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1244	Goginan (silver-lead), Cardiganshire	7 1/2	15	10 12	2 0 0	0	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1248	Gomans (copper), St. Claz	13 1/2	90	80 85	4 0 0	2	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1252	Graham and St. Aubyn (copper)	100 1/2	90	80 85	4 0 0	2	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1256	Great South Tolgus [S.E.]	2 1/2	16 1/2	17	0 16 6	0	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1260	Great Wheal Vor (tin, cop.), Helston [S.E.]	7 1/2	3 1/2	3 1/2	0 5 0	0	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1264	Great Work (tin), Gernoe	100	140	140	231 100	7	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1268	Herodotus (lead), near Liskeard	8 1/2	8 1/2	7 1/2 8 1/2	3 2 6	0	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1272	Hingston Down Consols (copper), Calstock	3 1/2	5 1/2	6 1/2	2 16 0	0	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1276	Holyford (copper), near Tappary	11	8 1/2	8 1/2	4 2 6	0	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1280	Ile of Man (Limited)	25	42	42	54 17 3	1	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1284	Jamaica (lead), Mold, Flintshire	31	13s. 6d.	—	380 00	5	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1288	Laxey Mining Company, Isle of Man	100	1000	1420 00	50 00	0	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1292	Levant (copper, tin), St. Just	2 1/2	90	90 95	1062 00	4	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1296	Lewis Mines (tin, copper), St. Erth	31 1/2	3 1/2	3 1/2	0 10 0	0	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1300	Lisburne (lead), Cardiganshire, Wales	120	120	298 100	3 0 0	0	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1304	Marke Valley (copper), Caradon	41	10s. 6d.	3	0 5 6	0	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1308	Mendip Hills (lead), Somerset	3 1/2	1 1/2	1 1/2	1 7 6	0	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1312	Merrill (lead), Flint	3 1/2	90	111 0	1 11 0	0	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1316	Mines (Limited)	20	90	90	21 0 0	0	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1320	Mining Co. of Ireland (cop., lead, coal)	15 1/2	15 1/2	15 1/2	12 15 6	0	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1324	Nantow and Penrhyn, Limited (2 1/2 shares)	1 1/2	1 1/2	1 1/2	0 1 6	0	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1328	Nether Heath, Westmoreland	1 1/2	1 1/2	1 1/2	0 2 0	0	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1332	Newtons Mining Company, Co. Down	50	35	48 00	1 0 0	0	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1336	North Pool (copper, tin), Pool	33 1/2	70	60 70	324 00	2	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1340	North Rosebar (copper), Camborne	50 1/2	150	150 160	730 00	4	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1344	North Wheal Bassett (cop., tin), Illo. [S.E.]	6 1/2	13 1/2	13 1/2	13 13 0	0	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1348	Par Consols (copper), St. Blazey [S.E.]	2 1/2	21	20 21	29 14 0	1	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1352	Peak United (lead), North Derbyshire	7 1/2	2 1/2	2 1/2	4 10 0	0	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1356	Phoenix (copper, tin), Linkinghorne	100	370	370	224 10 0	20	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1360	Polybor (tin), St. Agnes (Preferential)	15	80	85 80 2d	19 11 9	1	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1364	Providence Mines (tin), Uny Lelant	20 1/2	13s. 2d.	12	66 6	4	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1368	Roseworthy and Bachelton (lead)	11 1/2	12	12 1/2	0 10 0	0	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1372	Rosewarne United (copper, tin), Gwennap	12	32 1/2	32 1/2	0 10 0	0	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1376	Sortridge Consols (cop.), Whitchurch [S.E.]	6s.	2 1/2	2 1/2	43 0 0	0	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1380	South Consols (copper), St. Claz	2 1/2	350	340 345	483 0 0	8	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1384	South Consols (copper), St. Austell	12	285	285	90 00	20	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1388	South Tolgus (copper), Redruth, Cornwall	14	130	130	74 0 0	3	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1392	South Wheal Francis, Illogan [S.E.]	16 1/2	240	230 240	267 5 0	6	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1396	Spearhead Consols (tin), St. Just, Cornwall	3 1/2	4 1/2	4 1/2	8 8 6	0	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1400	Spearhead (copper), St. Just	23 1/2	7s. 8d.	15	4 5 0	0	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1404	St. Aubyn and Grylls (cop., tin), Breage	6 1/2	5s. 4d.	5	0 17 6	0	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1408	St. Day United (tin and copper)	2	1 1/2	1 1/2	0 2 6	0	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1412	St. Ives Consols (tin), St. Ives	80	160	150 160	910 00	7	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1416	Tamar Consols (all-lead), Beccleston [S.E.]	4 1/2	1 1/2	1 1/2	4 13 6	0	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1420	Tincons (copper, tin), Pool, Illogan [S.E.]	9	4	4 1/2	8 11 3	0	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1424	Trehan (silver-lead), Menheniot [S.E.]	9	4	4 1/2	8 11 3	0	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1428	Trevelyan Consols (tin), St. Ives	11 1/2	20 1/2	13 1/2	1 15 0	1	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1432	Trevelyan (copper), Gwennap, Cornwall	42 1/2	65	55 65	467 15 0	5	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1436	Trevelyan (copper), Gwennap, Cornwall	12 1/2	20	18 20	403 13 6	2	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1440	Trevelyan (copper), Gwennap, Cornwall	12 1/2	20	18 20	403 13 6	2	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1444	Trevelyan (copper), Gwennap, Cornwall	12 1/2	20	18 20	403 13 6	2	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1448	Trevelyan (copper), Gwennap, Cornwall	12 1/2	20	18 20	403 13 6	2	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1452	Trevelyan (copper), Gwennap, Cornwall	12 1/2	20	18 20	403 13 6	2	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1456	Trevelyan (copper), Gwennap, Cornwall	12 1/2	20	18 20	403 13 6	2	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1460	Trevelyan (copper), Gwennap, Cornwall	12 1/2	20	18 20	403 13 6	2	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1464	Trevelyan (copper), Gwennap, Cornwall	12 1/2	20	18 20	403 13 6	2	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1468	Trevelyan (copper), Gwennap, Cornwall	12 1/2	20	18 20	403 13 6	2	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1472	Trevelyan (copper), Gwennap, Cornwall	12 1/2	20	18 20	403 13 6	2	0	8000	East Liskeard (tin), Gwennap	24	10	2 1/2	8
1476	Trevelyan (copper), Gwennap, Cornwall	12 1/2	20	18									